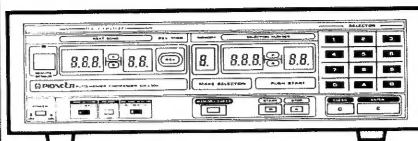


384

# Service Manual



ORDER NO.  
ARP1851

AUTO CHANGER COMMANDER

# CO-V300

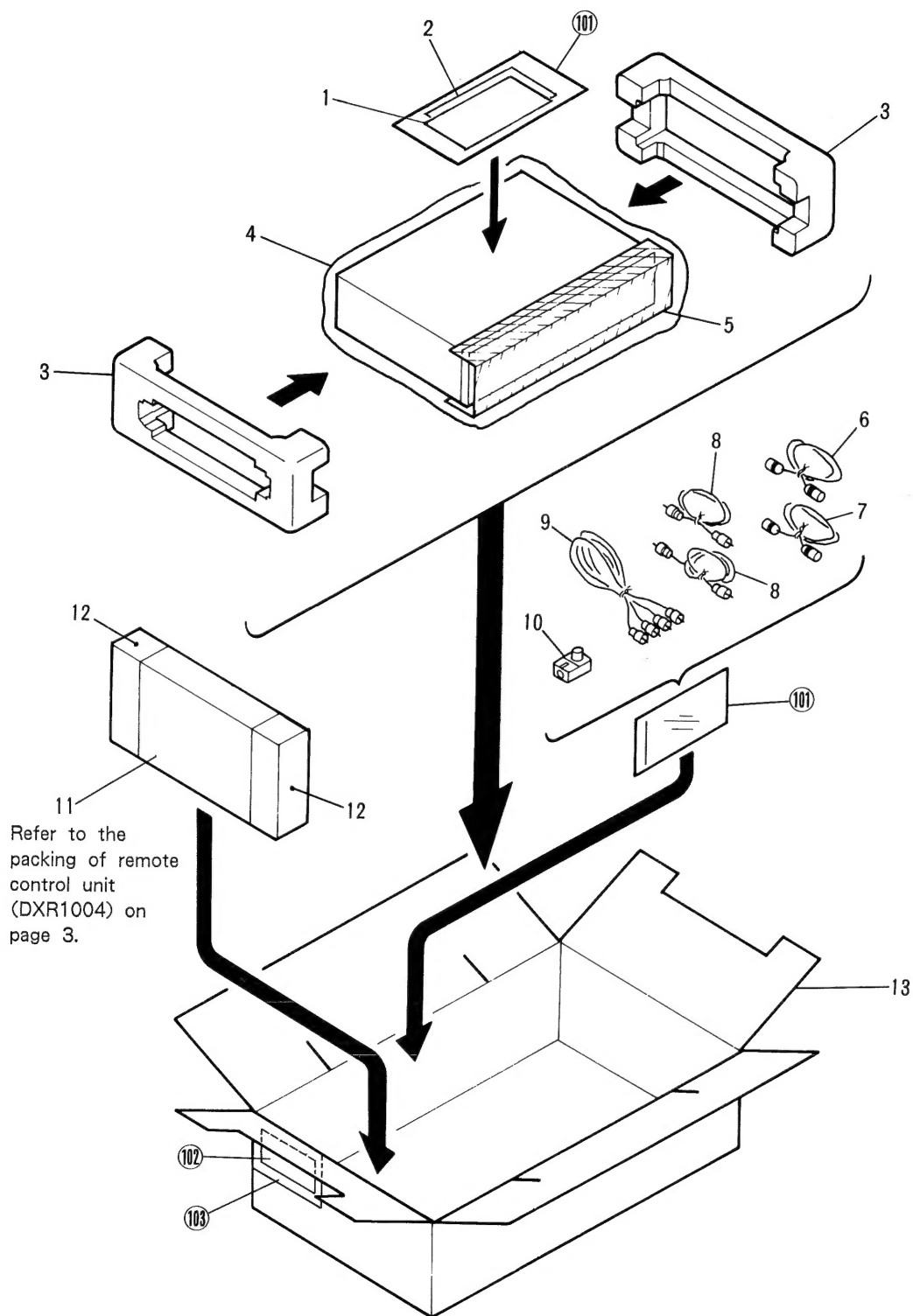
- This manual is applicable to the KU/CA type.
- Automatic play is possible with the integrated LC-V300 video disc auto changer.
- Up to four LC-V300 video disc auto changer can be played alternately by using CO-V300.

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# 1. PACKING

## Main unit



## NOTES :

- Parts without part number cannot be supplied.
- The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

## Parts List of Packing

## Main unit packing

| Mark | No. | Part No. | Description                      |
|------|-----|----------|----------------------------------|
|      | 1   | DRB1018  | Operating instructions A         |
|      | 2   | DRB1019  | Operating instructions B         |
|      | 3   | DHA-107  | Side pad                         |
|      | 4   | RHX-030  | Sheet B                          |
|      | 5   | RHC-144  | Styren paper                     |
|      | 6   | VDE-039  | RF antenna cable                 |
|      | 7   | DDE-113  | 13-pin DIN cord                  |
|      | 8   | DDE1013  | Connection cord<br>(video cord)  |
|      | 9   | DEE1015  | Connection cord<br>(audio cord)  |
|      | 10  | VKX-019  | Antenna adapter                  |
|      | 11  | DXR1004  | Remote control unit<br>(CU-V114) |
|      | 12  | DHA-111  | Remote control pad               |
|      | 13  | DHG1118  | Packing case                     |
|      | 101 |          | Plastic bag                      |
|      | 102 |          | Follow-up card                   |
|      | 103 |          | Follow-up card bag               |

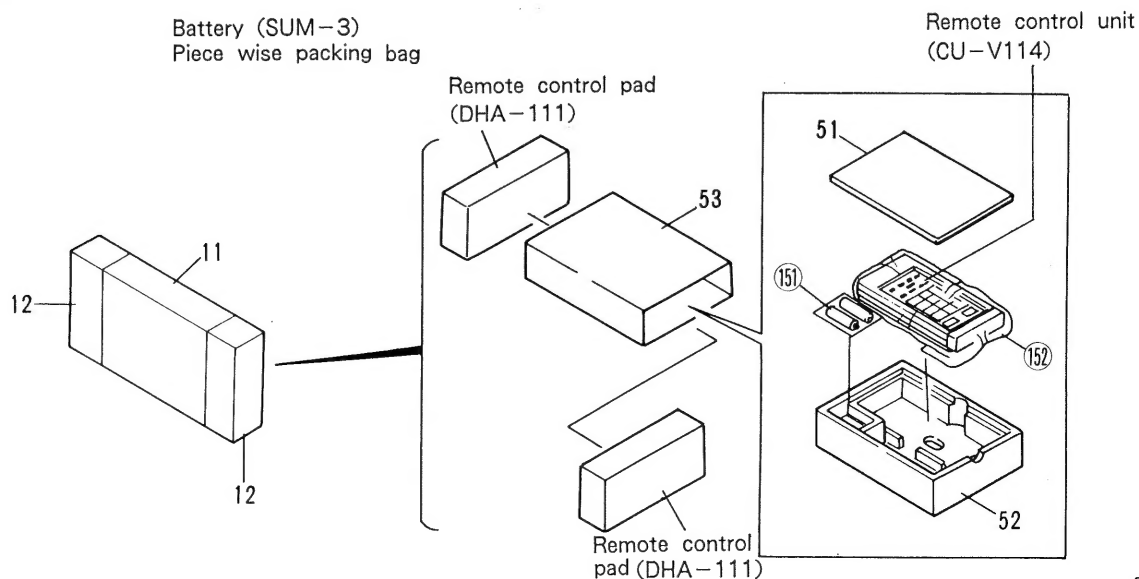
## Remote Control Unit (DXR1004)

Note: The serial No. of the remote control unit is CU-V114.

The parts No. of the packed unit is DXR1004.

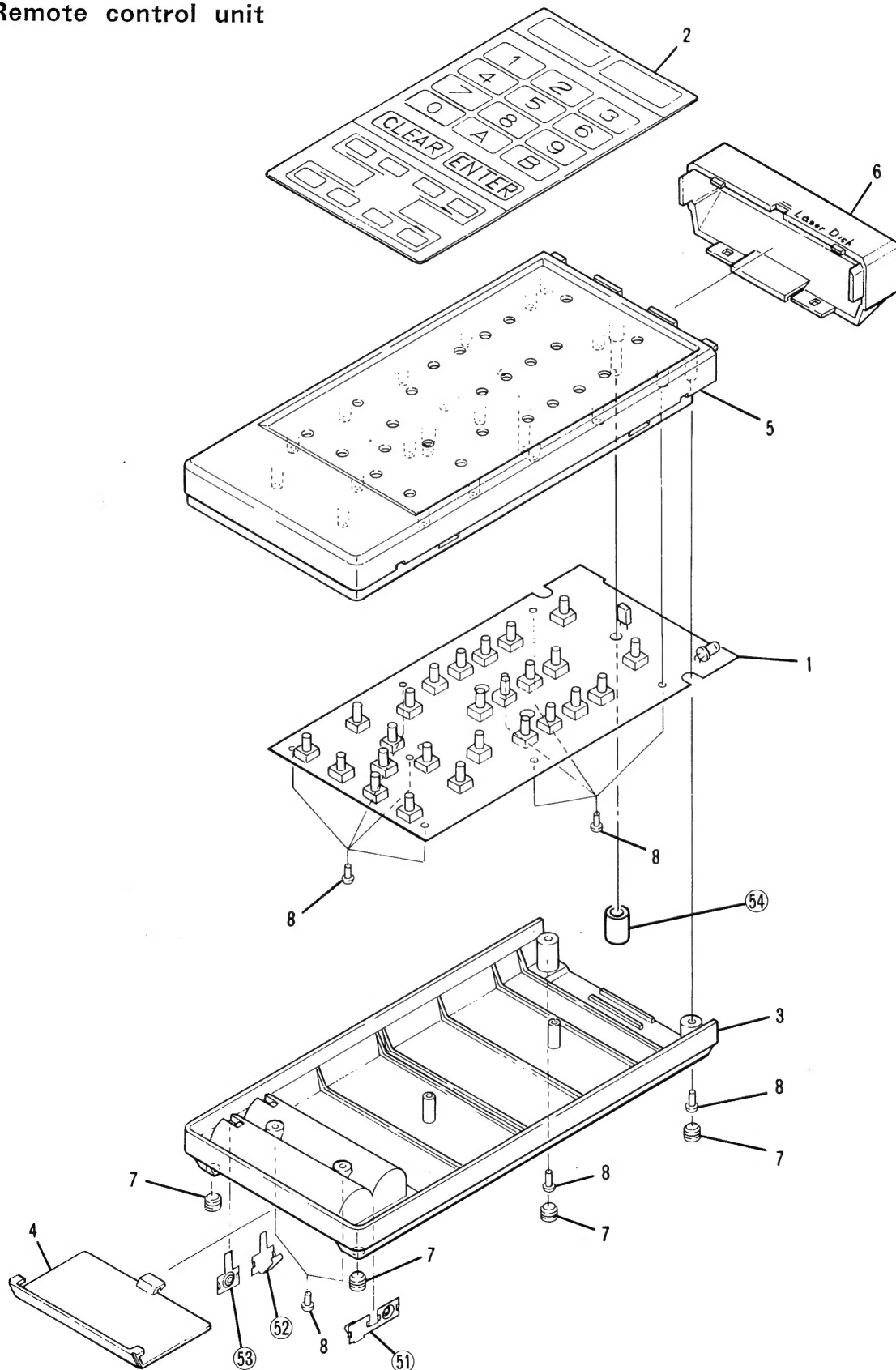
## Parts List of Remote control unit (DXR1004)

| Mark | No. | Part No. | Description            |
|------|-----|----------|------------------------|
|      | 51  | VHA-096  | Pad (B)                |
|      | 52  | VHA-095  | Pad (A)                |
|      | 53  | DHG1121  | Packing case           |
|      | 151 |          | Battery (SUM-3)        |
|      | 152 |          | Piece wise packing bag |



## 2. EXPLODED VIEWS AND PARTS LIST

Remote control unit



NOTES :

- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

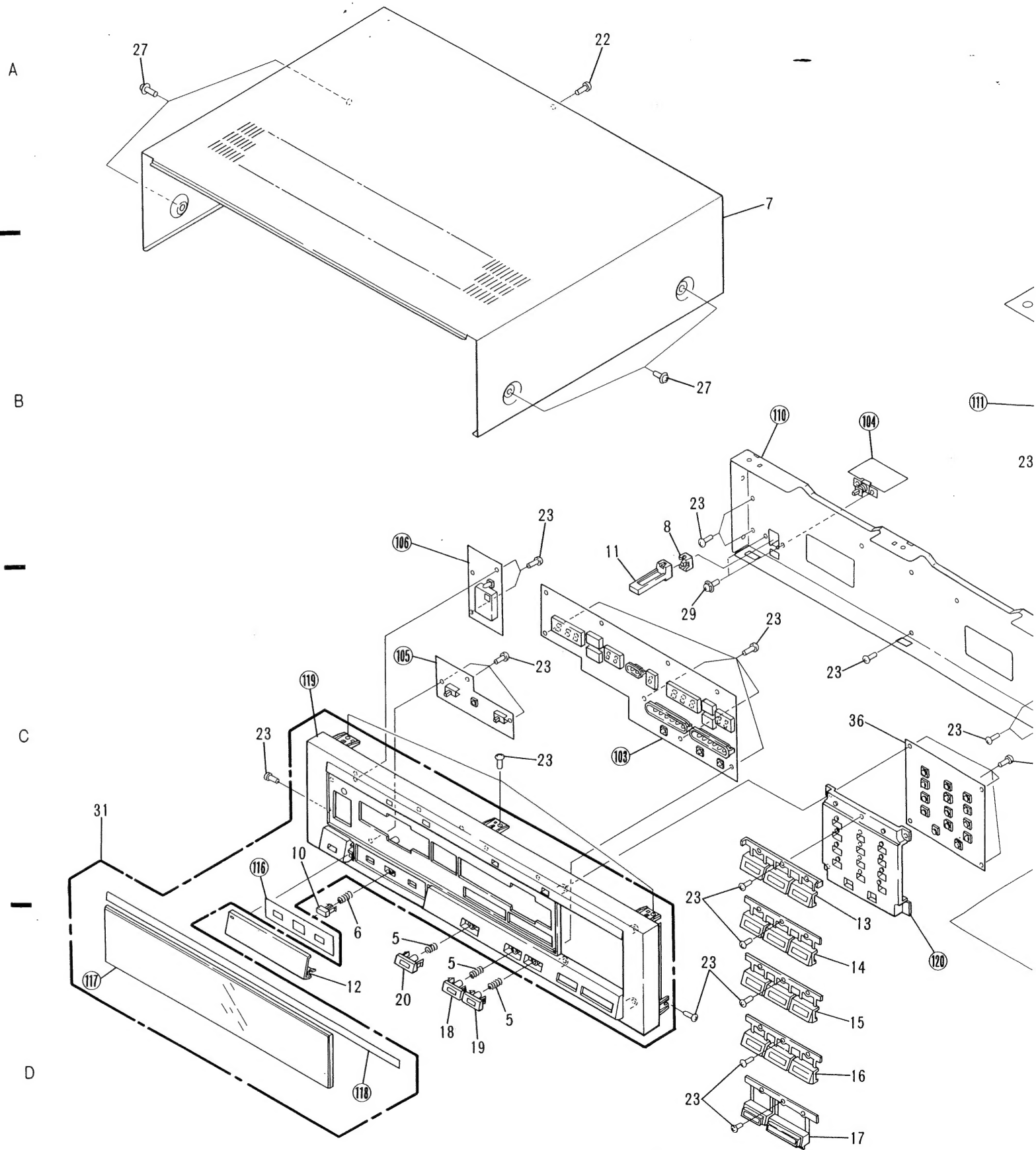
Parts List of Remote Control Unit (DXR1004)

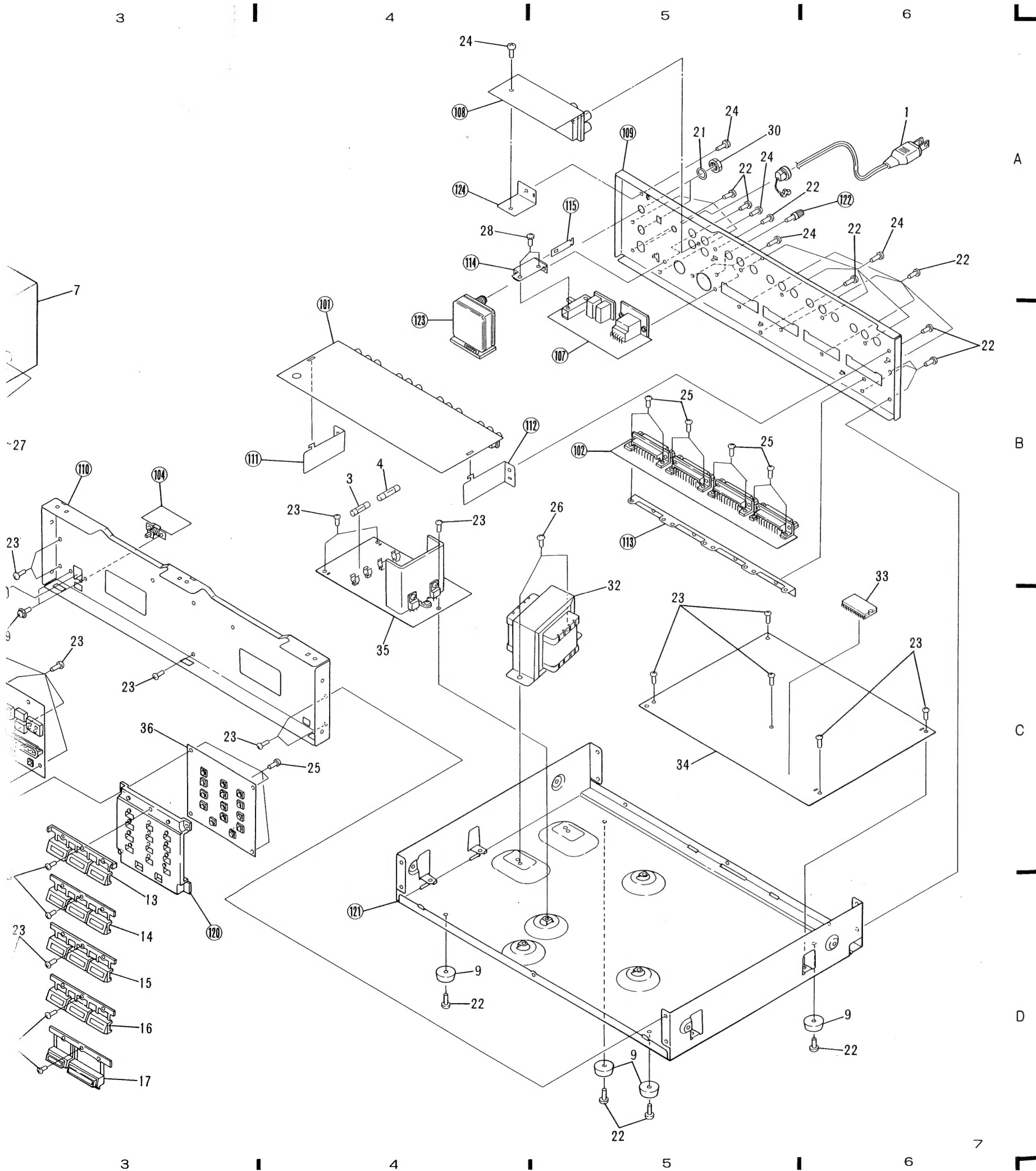
| Mark | No. | Part No.     | Description     |
|------|-----|--------------|-----------------|
|      | 1   | DWY1004      | RMTC unit       |
|      | 2   | DAH1329      | Operation sheet |
|      | 3   | DMA-148      | Under case      |
|      | 4   | DMA-149      | Battery cover   |
|      | 5   | DNK1488      | Upper case      |
|      | 6   | DNK1047      | IR filter       |
|      | 7   | VEB-074      | Rubber foot     |
|      | 8   | PPZ20P060FMC | Screw (2×6)     |
|      | 51  |              | Terminal        |
|      | 52  |              | Terminal        |
|      | 53  |              | Terminal        |
|      | 54  |              | spacer          |

Parts List of Exterior

| Mark | No. | Part No.     | Description                  | Mark | No. | Part No. | Description         |
|------|-----|--------------|------------------------------|------|-----|----------|---------------------|
| ⚠    | 1   | DDG1016      | AC power cord                | ⊙    | 36  | DWS1007  | KEYB unit           |
|      | 2   |              | .....                        |      | 101 |          | AVIN unit           |
| ⚠    | 3   | DEK1007      | FU1 Fuse (400mA)             |      | 102 |          | DSUB unit           |
| ⚠    | 4   | DEK1013      | FU2 Fuse (1.25A)             |      | 103 |          | DISP unit           |
|      | 5   | DBH1002      | Spring A                     |      | 104 |          | PWSW unit           |
|      | 6   | DBH1003      | Spring B                     |      | 105 |          | MODE unit           |
|      | 7   | DNE-108      | Bonnet                       |      | 106 |          | IRAB unit           |
|      | 8   | VEC-151      | Flexible ring                |      | 107 |          | DINB unit           |
|      | 9   | VEC-119      | Leg cap                      |      | 108 |          | AVOT unit           |
|      | 10  | DAC1009      | Select knob                  |      | 109 |          | Rear panel          |
|      | 11  | DAC1010      | Power knob                   |      | 110 |          | Panel stay          |
|      | 12  | DNK1012      | Sealing panel                |      | 111 |          | PCB holder          |
|      | 13  | DXA1063      | Numeric key 1 assembly       |      | 112 |          | PCB holder (L)      |
|      | 14  | DXA1064      | Numeric key 4 assembly       |      | 113 |          | D sub holder        |
|      | 15  | DXA1065      | Numeric key 7 assembly       |      | 114 |          | Switch holder       |
|      | 16  | DXA1066      | Numeric key 0 assembly       |      | 115 |          | Switch lever        |
|      | 17  | DXA1129      | EC key assembly              |      | 116 |          | Display panel A     |
|      | 18  | DXA1014      | Start knob assembly          |      | 117 |          | Display panel B     |
|      | 19  | DXA1015      | Stop knob assembly           |      | 118 |          | Display sash        |
|      | 20  | DXA1016      | Check knob assembly          |      | 119 |          | Front panel         |
|      | 21  | VNE-270      | F-washer                     |      | 120 |          | Numeric keys holder |
|      | 22  | BBZ30P060FZK | Screw                        |      | 121 |          | Chassis             |
|      | 23  | BBZ30P080FMC | Screw                        |      | 122 |          | Terminal (GND)      |
|      | 24  | BBZ30P080FZK | Screw                        |      | 123 |          | RFMB unit           |
|      | 25  | BBZ30P120FMC | Screw                        |      | 124 |          | PCB stopper         |
|      | 26  | BBZ40P080FMC | Screw                        |      |     |          |                     |
|      | 27  | FBT40P080FZK | Screw                        |      |     |          |                     |
|      | 28  | PMA26P050FMC | Screw                        |      |     |          |                     |
|      | 29  | PMA30P060FMC | Screw                        |      |     |          |                     |
|      | 30  | VLL-082      | F-nut                        |      |     |          |                     |
| ⚠    | 31  | DXX1260      | Front panel assembly         |      |     |          |                     |
|      | 32  | DTT1030      | Power transformer (T1: 120V) |      |     |          |                     |
| ⊙    | 33  | DWY1009      | IC22 (ROM)                   |      |     |          |                     |
| ⊙    | 34  | DWG1008      | MAIN unit                    |      |     |          |                     |
| ⊙    | 35  | DWR1045      | PWSP unit                    |      |     |          |                     |

Exterior

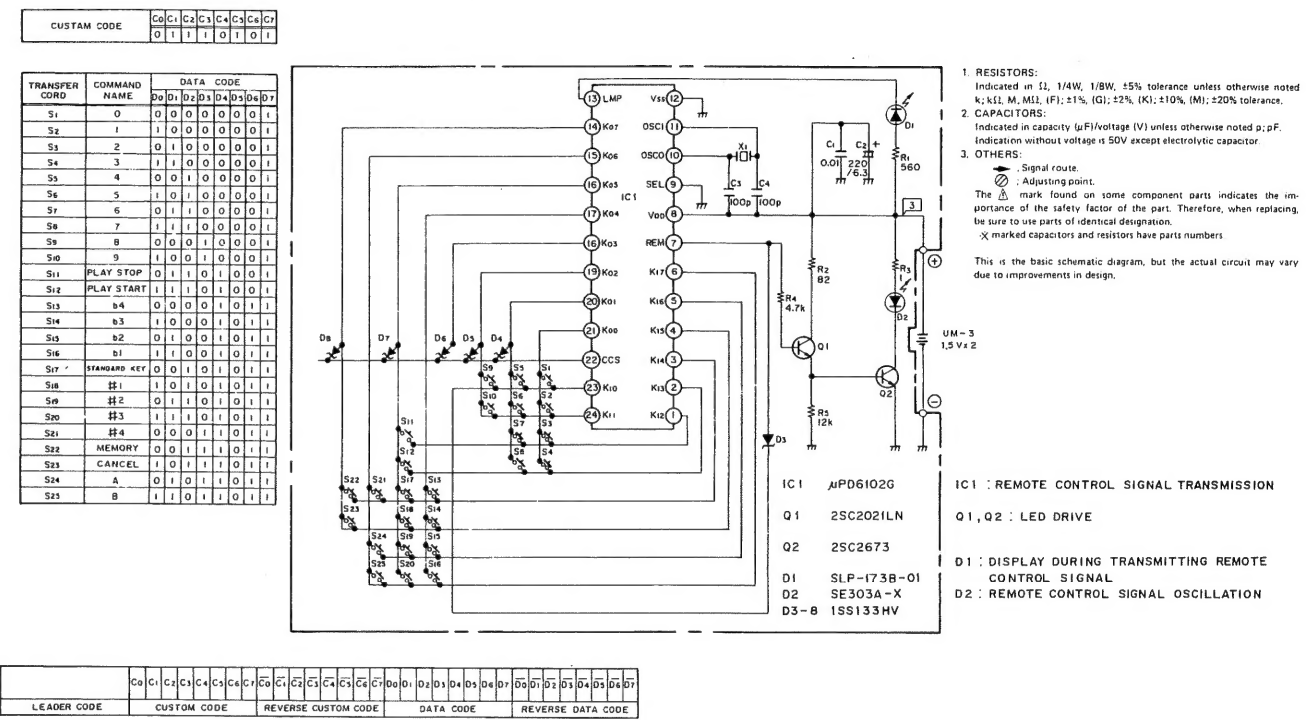




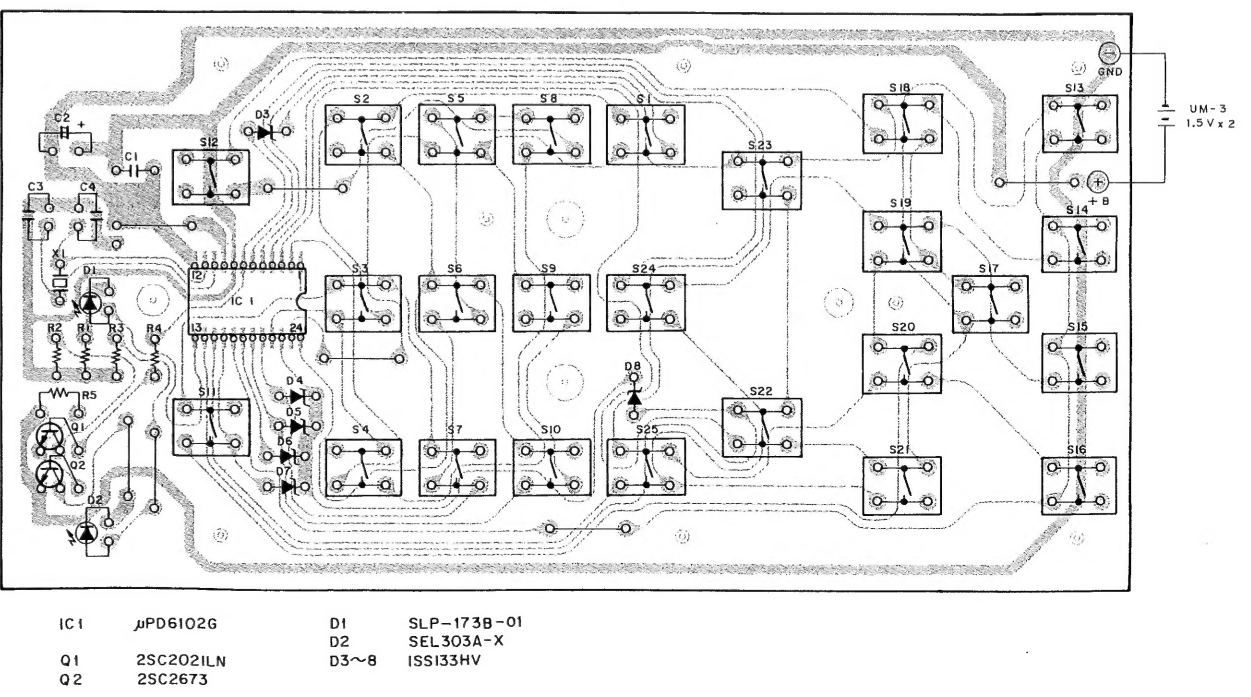
### 3. SCHEMATIC AND P.C. BOARDS CONNECTION DIAGRAM

#### 3.1 SCHEMATIC DIAGRAM AND P.C. BOARD PATTERN OF REMOTE CONTROL UNIT

Schematic Diagram (DWY1004)

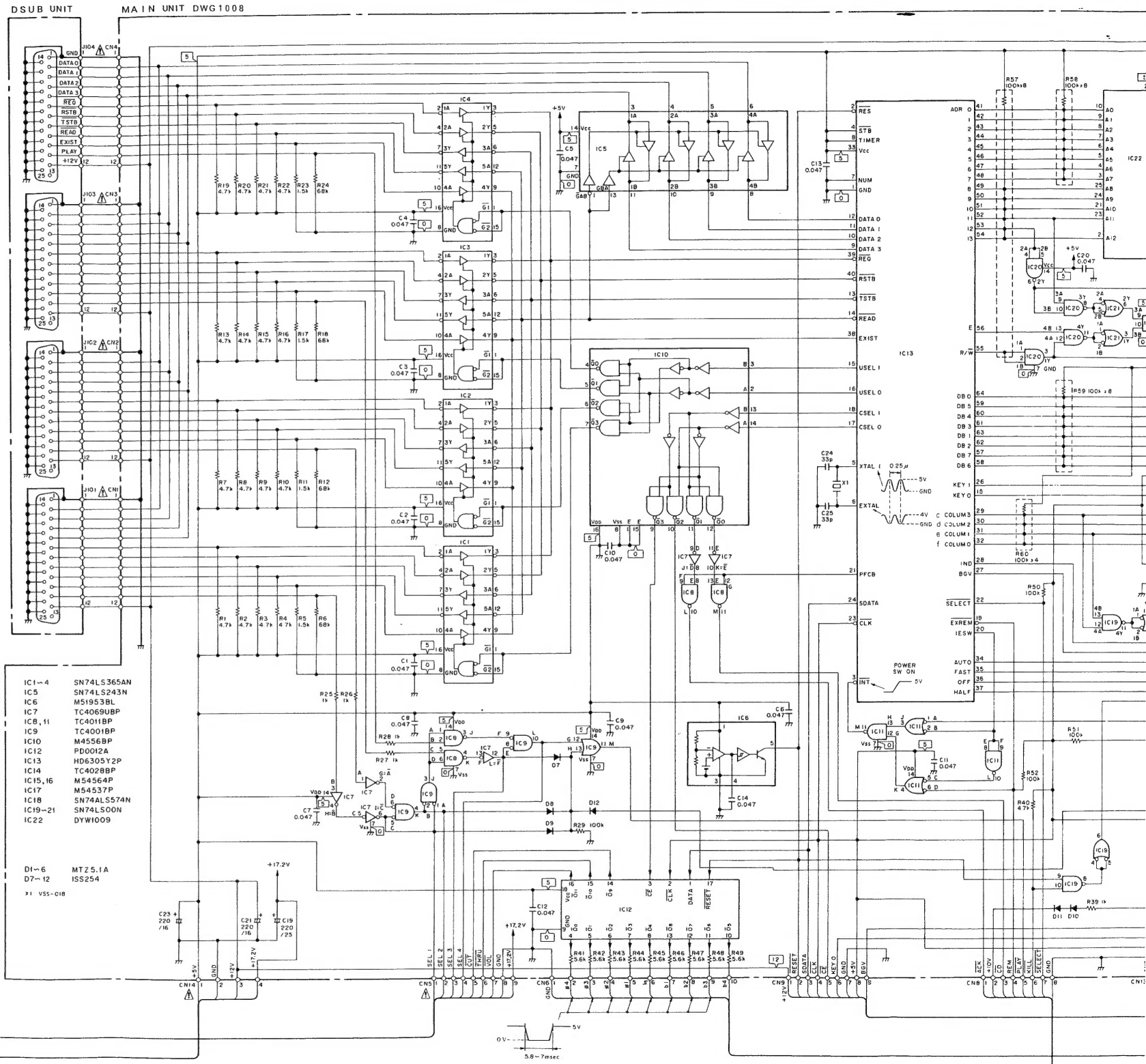
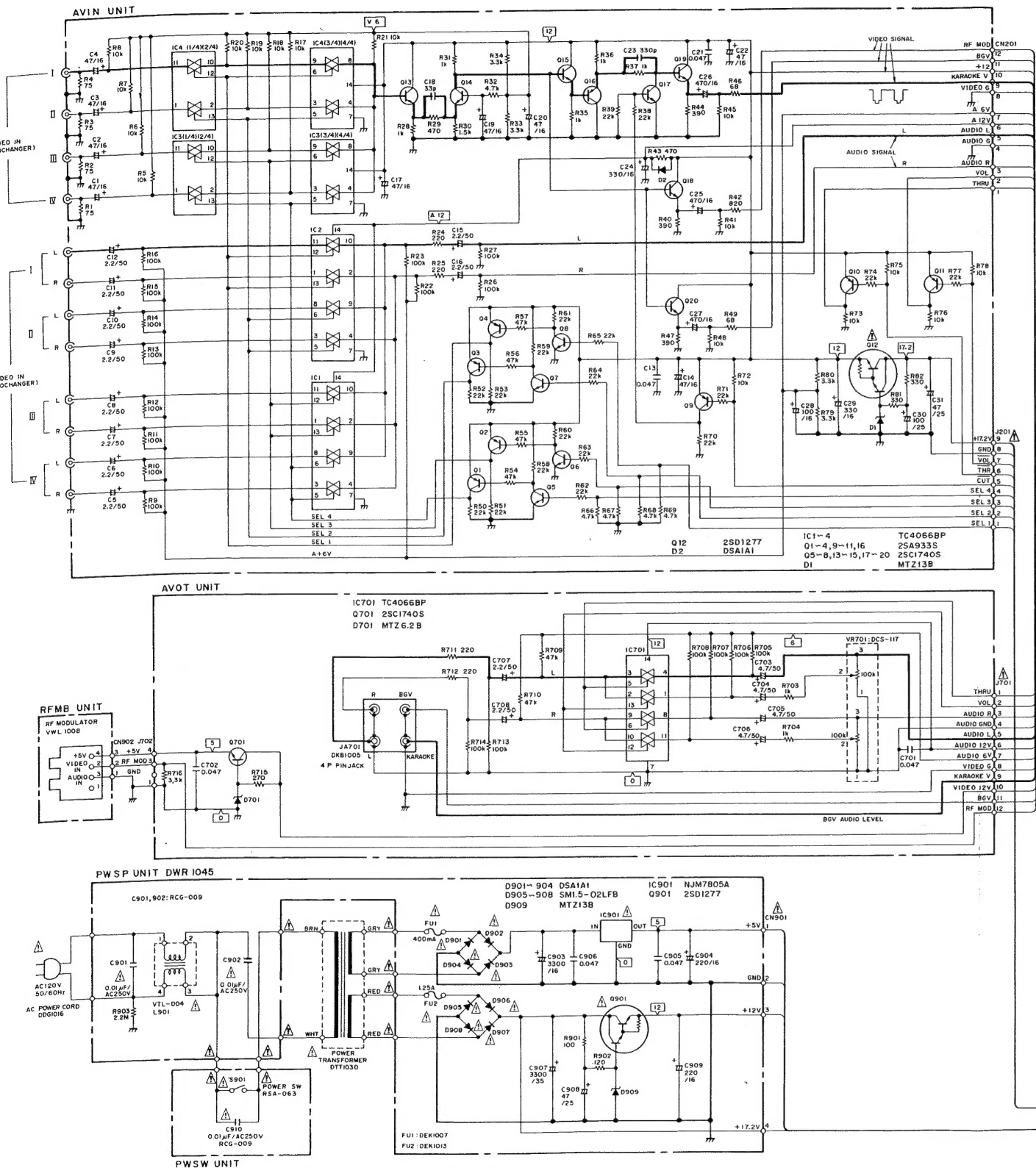


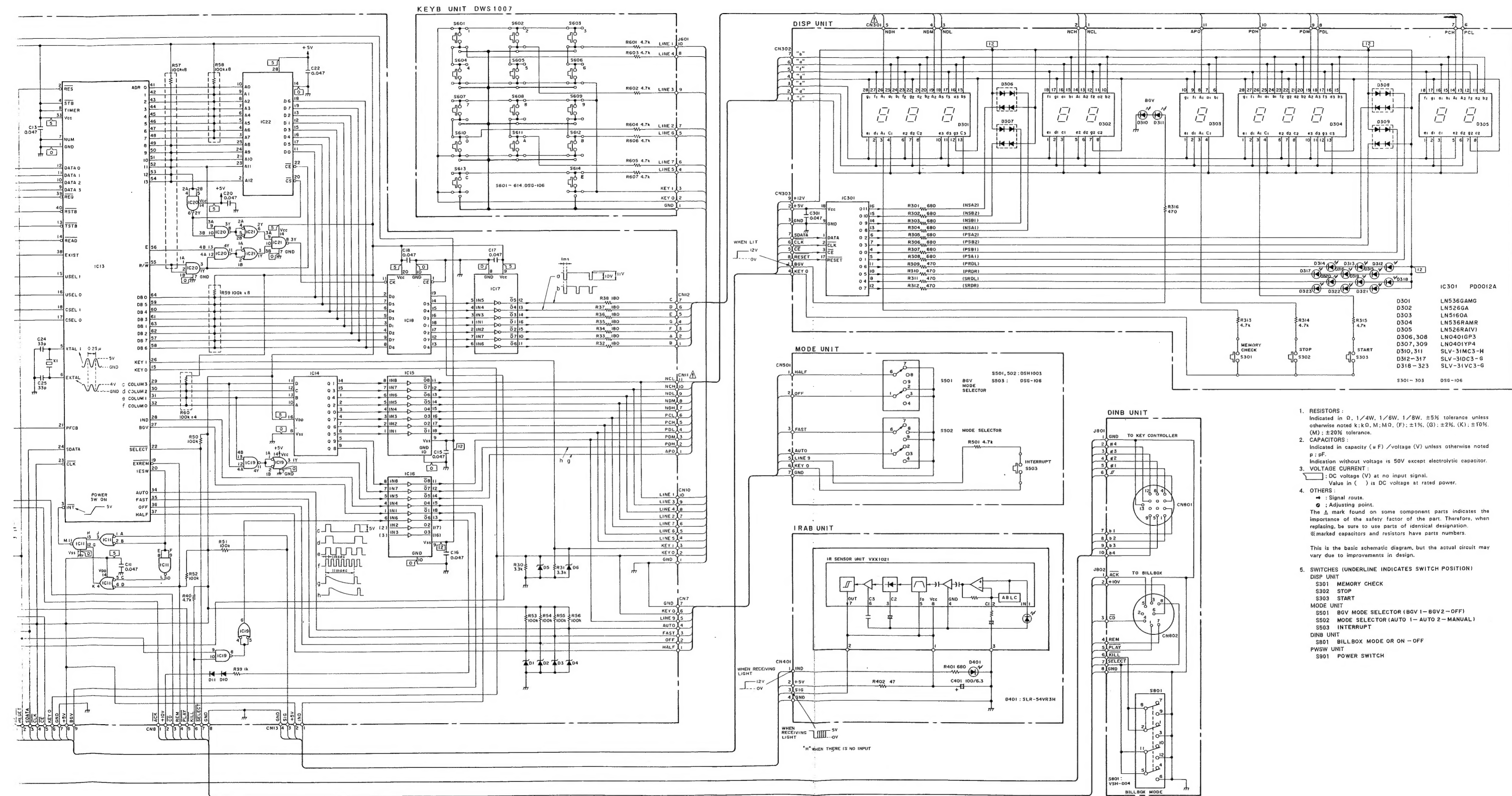
P.C. Board Pattern (DWY1004)





3.2 SCHEMATIC DIAGRAM OF MAIN UNIT







3.3 P.C. BOARDS CONNECTION DIAGRAM OF MAIN UNIT

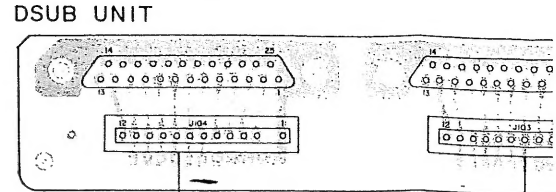
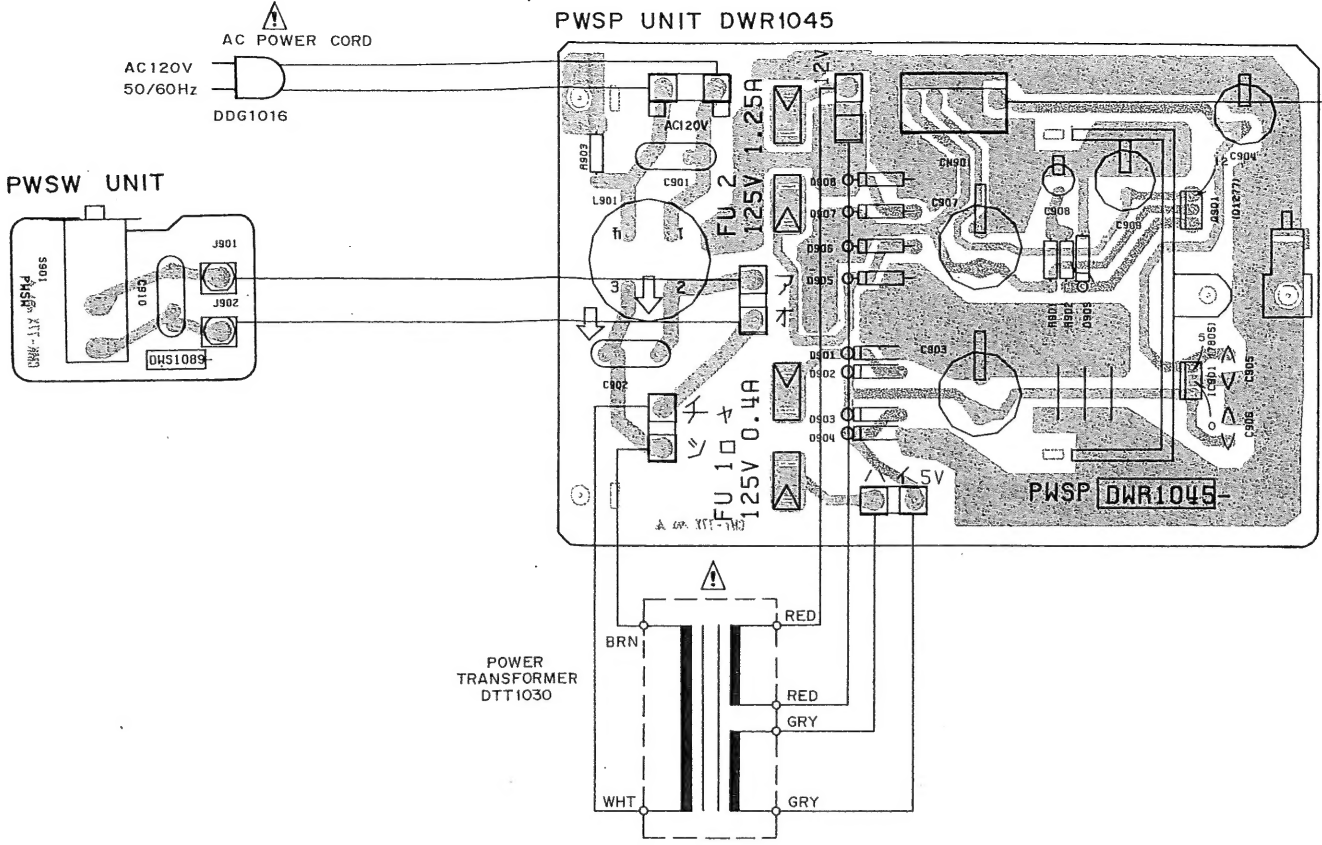
- View from component side

A

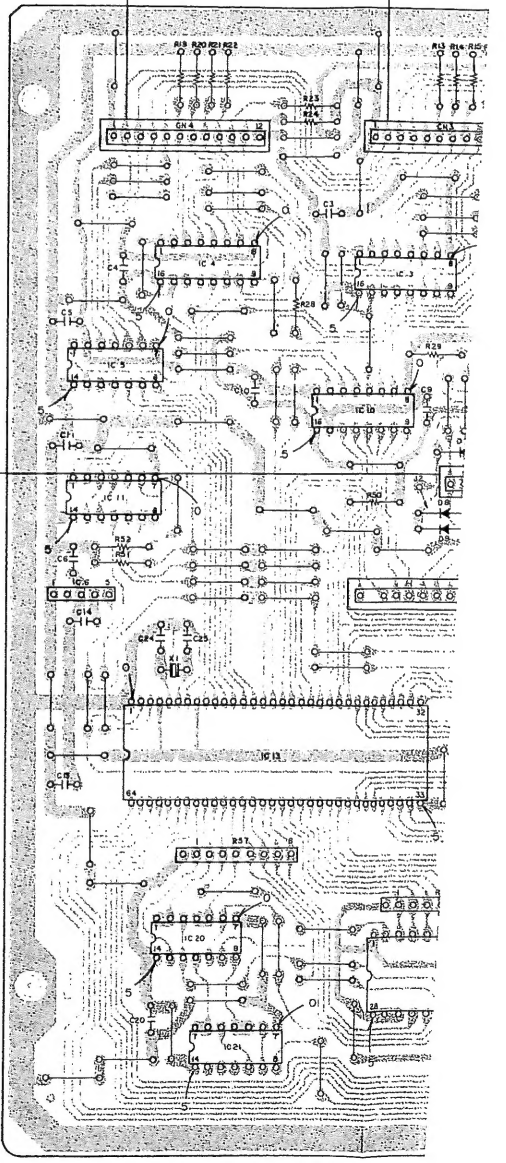
| P.C.B. pattern diagram indication | Corresponding part symbol | Part name       | P.C.B. pattern diagram indication | Corresponding part symbol | Part name                              |
|-----------------------------------|---------------------------|-----------------|-----------------------------------|---------------------------|----------------------------------------|
|                                   |                           | Transistor      |                                   |                           | Ceramic capacitor                      |
|                                   |                           | FET             |                                   |                           | Mylar capacitor                        |
|                                   |                           | Diode           |                                   |                           | Styrol capacitor                       |
|                                   |                           | Zener diode     |                                   |                           | Electrolytic capacitor (Non polarized) |
|                                   |                           | LED             |                                   |                           | Electrolytic capacitor (Noiseless)     |
|                                   |                           | Varactor        |                                   |                           | Electrolytic capacitor (Polarized)     |
|                                   |                           | Power capacitor |                                   |                           | Semi-fixed resistor                    |
|                                   |                           | Resistor        |                                   |                           | Resistor array                         |
|                                   |                           | Inductor        |                                   |                           | Resistor                               |
|                                   |                           | Coil            |                                   |                           | Resonator                              |
|                                   |                           | Transformer     |                                   |                           | Thermistor                             |
|                                   |                           | Filter          |                                   |                           |                                        |

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with shows negative terminal.
4. The diode marked with O shows cathode side.
5. The transistor terminal marked with shows emitter.

B

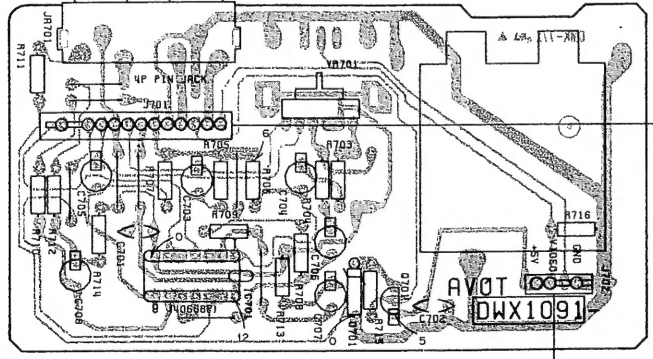


MAIN UNIT DWG1008

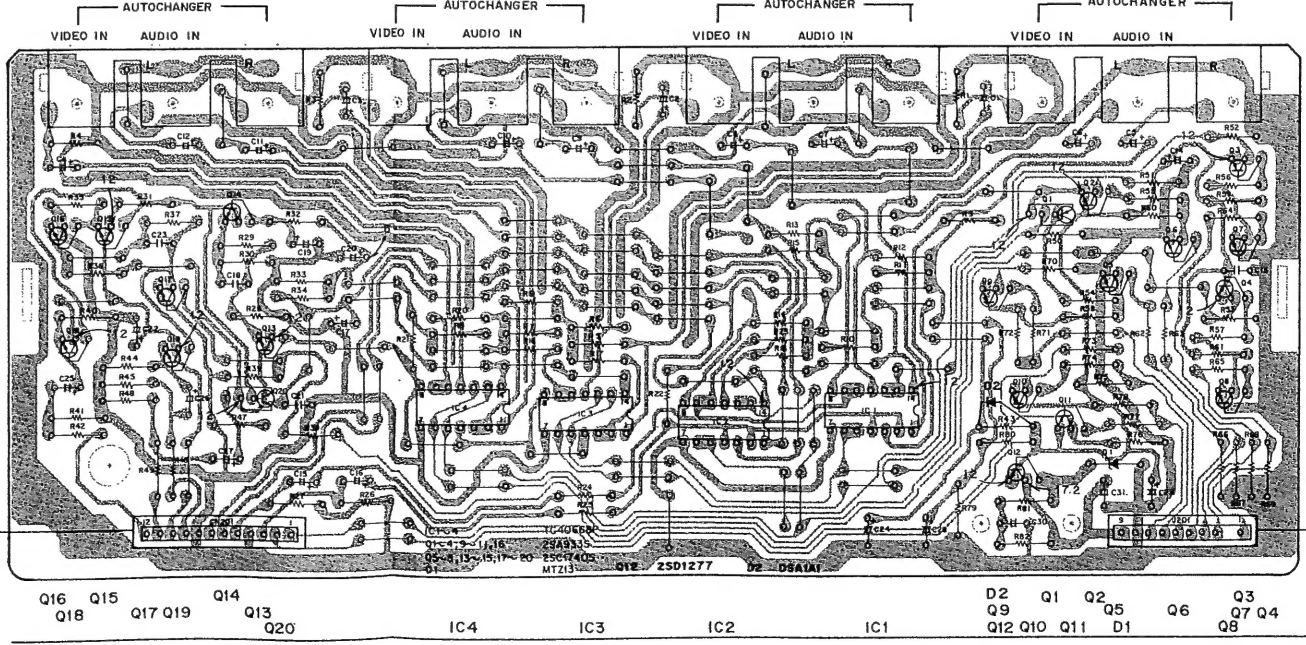


C

AVOT UNIT

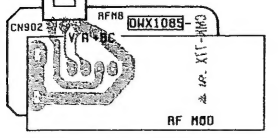


AVIN UNIT



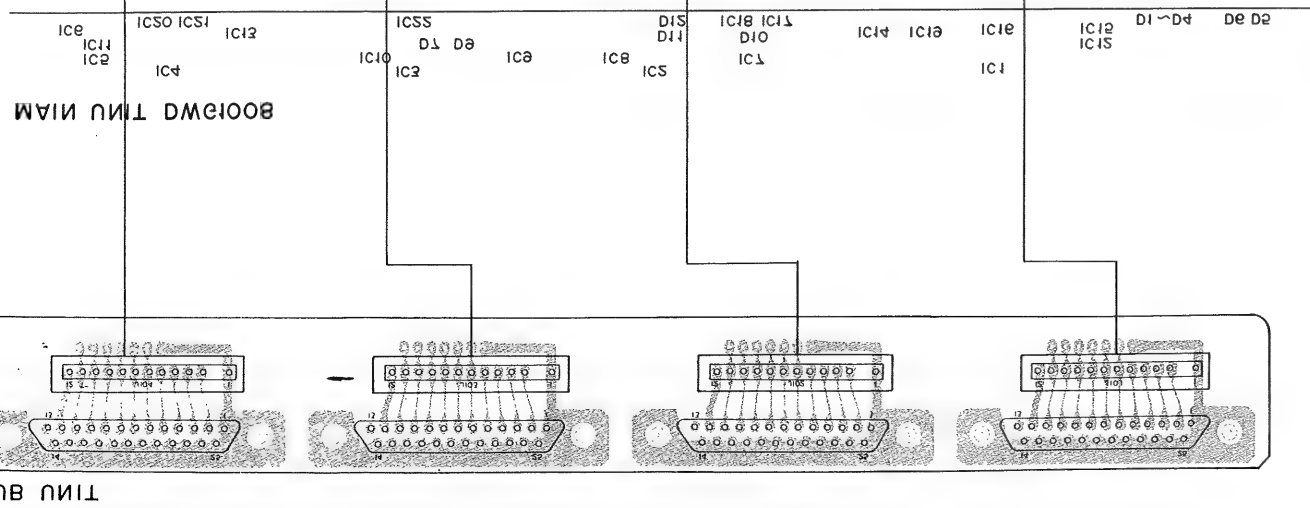
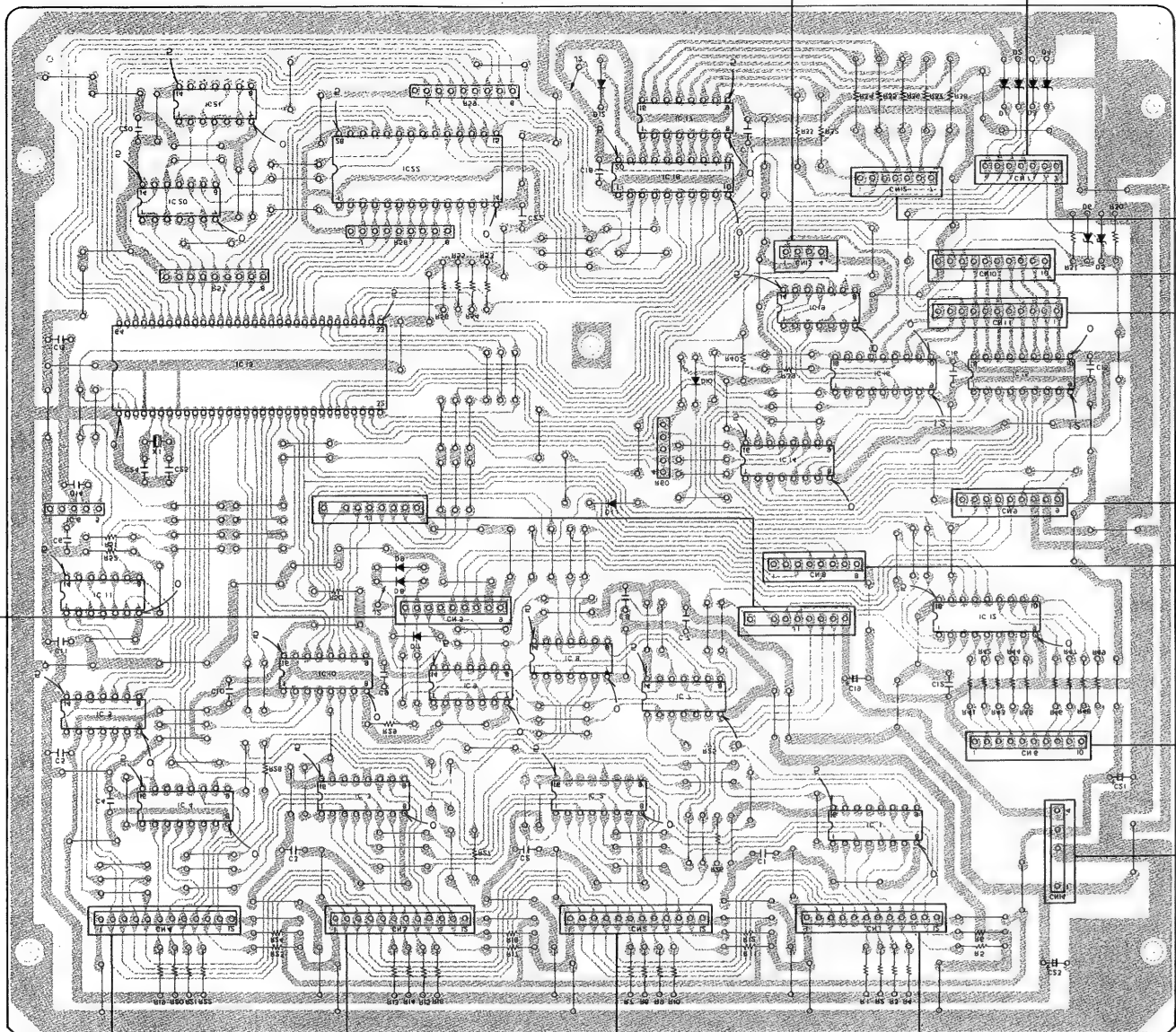
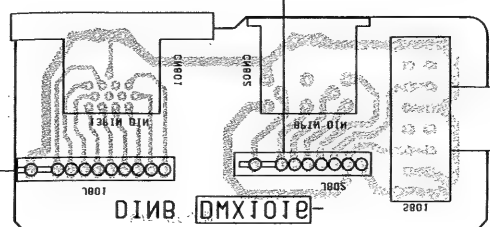
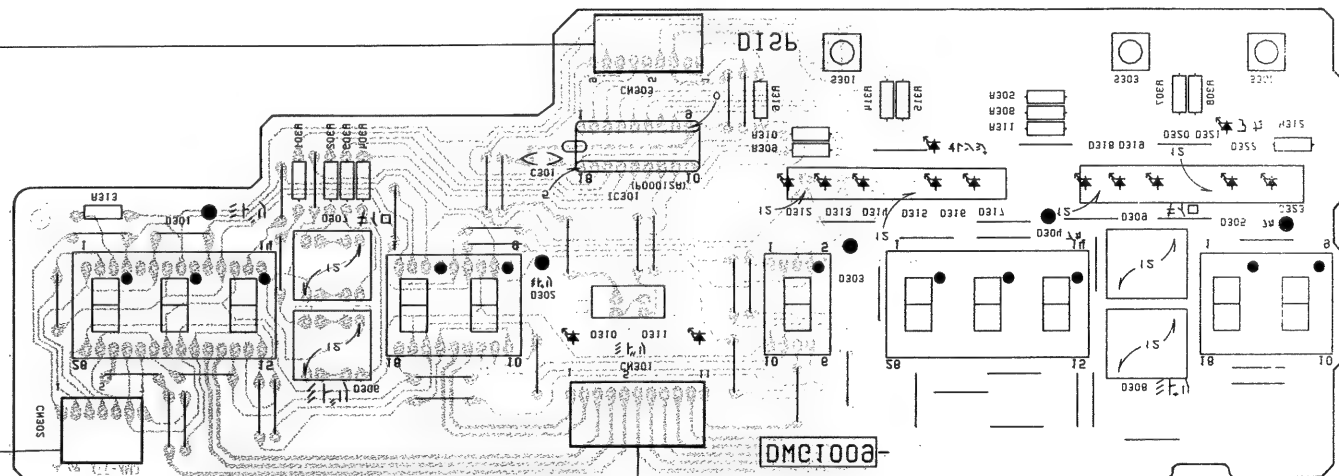
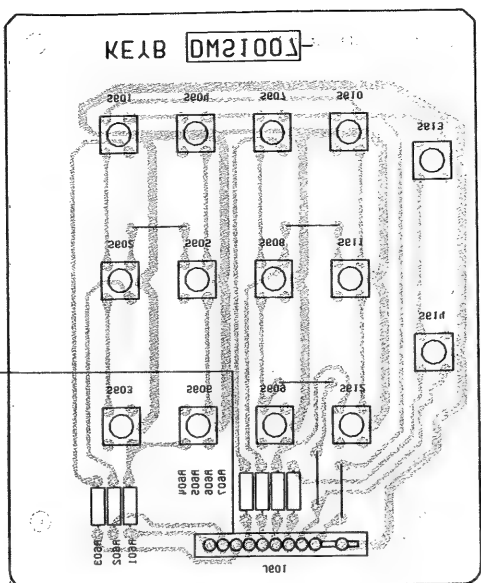
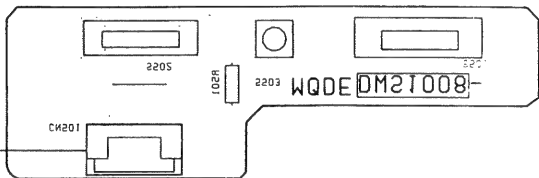
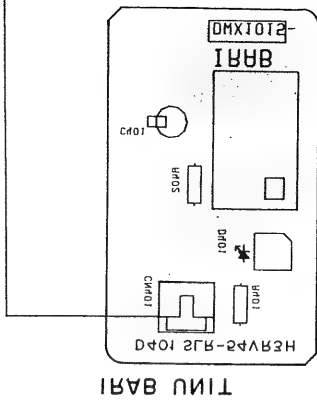
D

PFMB UNIT



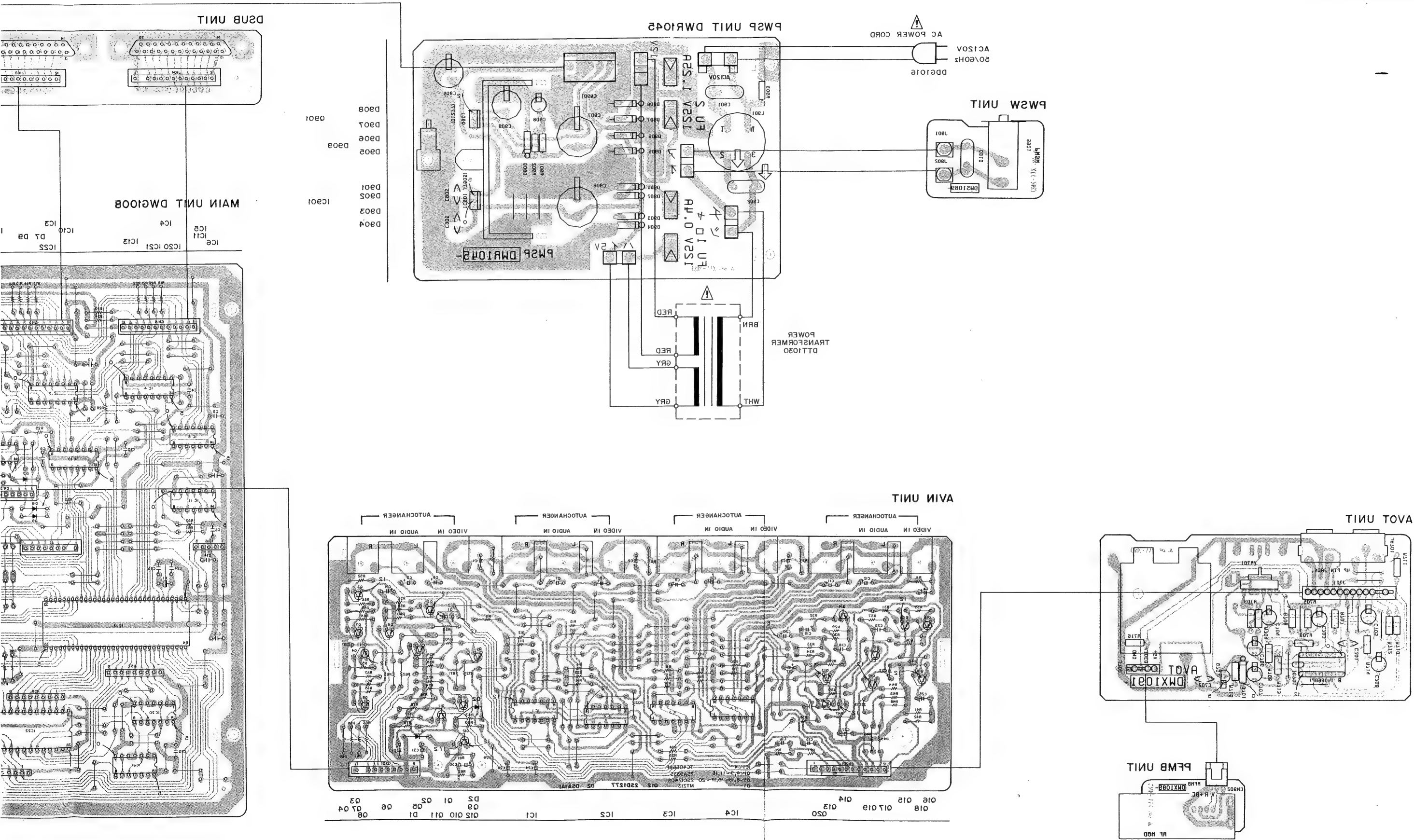






3.3 P.C. BOARDS CONNECTION DIAGRAM OF MAIN UNIT

• View from soldering side



## 4. ELECTRICAL PARTS LIST

### NOTES :

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

|              |                  |           |         |                                                                                                                                                                                                   |
|--------------|------------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 560 $\Omega$ | $56 \times 10^1$ | 561 ..... | RD1/4PS | <span style="border: 1px solid black; padding: 0 2px;">5</span> <span style="border: 1px solid black; padding: 0 2px;">6</span> <span style="border: 1px solid black; padding: 0 2px;">1</span> J |
| 47k $\Omega$ | $47 \times 10^3$ | 473 ..... | RD1/4PS | <span style="border: 1px solid black; padding: 0 2px;">4</span> <span style="border: 1px solid black; padding: 0 2px;">7</span> <span style="border: 1px solid black; padding: 0 2px;">3</span> J |
| 0.5 $\Omega$ | 0R5 .....        |           | RN2H    | <span style="border: 1px solid black; padding: 0 2px;">0</span> <span style="border: 1px solid black; padding: 0 2px;">R</span> <span style="border: 1px solid black; padding: 0 2px;">5</span> K |
| 1 $\Omega$   | 010 .....        |           | RS1P    | <span style="border: 1px solid black; padding: 0 2px;">0</span> <span style="border: 1px solid black; padding: 0 2px;">1</span> <span style="border: 1px solid black; padding: 0 2px;">0</span> K |

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

|                |                   |            |         |                                                                                                                                                                                                                                                                   |
|----------------|-------------------|------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.62k $\Omega$ | $562 \times 10^1$ | 5621 ..... | RN1/4SR | <span style="border: 1px solid black; padding: 0 2px;">5</span> <span style="border: 1px solid black; padding: 0 2px;">6</span> <span style="border: 1px solid black; padding: 0 2px;">2</span> <span style="border: 1px solid black; padding: 0 2px;">1</span> F |
|----------------|-------------------|------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Miscellaneous Parts

#### P.C. BOARD ASSEMBLY

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
| ⊙    | MAIN unit            | DWG1008  |
|      | DSUB unit            |          |
|      | DISP unit            |          |
| ⊙    | PWSP unit            | DWR1045  |
|      | PWSW unit            |          |
| ⊙    | KEYB unit            | DWS1007  |
|      | MODE unit            |          |
|      | IRAB unit            |          |
|      | DINB unit            |          |
|      | AVOT unit            |          |
|      | RFMB unit            |          |
|      | AVIN unit            |          |
|      | RMTC unit            | DWY1004  |

#### OTHERS

| Mark     | Symbol & Description | Part No. |
|----------|----------------------|----------|
| $\Delta$ | AC power cord        | DDG1016  |
| $\Delta$ | FU1 Fuse (400mA)     | DEK1007  |
| $\Delta$ | FU2 Fuse (1.25A)     | DEK1013  |
| $\Delta$ | T1 Power transformer | DTT1030  |
|          | IC22                 | DWY1009  |

#### ⊙ MAIN UNIT (DWG1008)

#### SEMICONDUCTORS

| Mark | Symbol & Description | Part No.    |
|------|----------------------|-------------|
|      | IC13                 | HD6305Y2P   |
|      | IC10                 | M4556BP     |
|      | IC6                  | M51953BL    |
|      | IC17                 | M54537P     |
|      | IC15, IC16           | M54564P     |
|      | IC12                 | PD0012A     |
|      | IC18                 | SN74ALS574N |
|      | IC19-IC21            | SN74LS00N   |
|      | IC5                  | SN74LS243N  |
|      | IC1-IC4              | SN74LS365AN |

| Mark | Symbol & Description | Part No.  |
|------|----------------------|-----------|
|      | IC9                  | TC4001BP  |
|      | IC8, IC11            | TC4011BP  |
|      | IC14                 | TC4028BP  |
|      | IC7                  | TC4069UBP |
|      | D1-D6                | MTZ5.1A   |
|      | D7-D12               | 1SS254    |

#### CAPACITORS

| Mark | Symbol & Description | Part No.    |
|------|----------------------|-------------|
|      | C24, C25             | CCC330J50   |
|      | C21, C23             | CEAS221M16  |
|      | C19                  | CEAS221M25  |
|      | C1-C18, C20, C22     | CKCYF473Z50 |
|      | C26                  | CKCYF103Z50 |

#### RESISTORS

| Mark | Symbol & Description | Part No.                                                                                                                                                                                                  |
|------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | R60                  | RA4S104J                                                                                                                                                                                                  |
|      | R57-R59              | RA8S104J                                                                                                                                                                                                  |
|      | R32-R38              | RS2LMF181J                                                                                                                                                                                                |
|      | Other resistors      | RD1/4PM <span style="border: 1px solid black; padding: 0 2px;"> </span> <span style="border: 1px solid black; padding: 0 2px;"> </span> <span style="border: 1px solid black; padding: 0 2px;"> </span> J |

#### OTHERS

| Mark | Symbol & Description           | Part No. |
|------|--------------------------------|----------|
|      | IC socket 28P                  | VKH1001  |
|      | X1 Ceramic resonator (4.00MHz) | VSS-018  |

#### DSUB UNIT

#### OTHERS

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
|      | D sub connector 25P  | DKP-176  |

## DISP UNIT

## SEMICONDUCTORS

| Mark | Symbol & Description | Part No.    |
|------|----------------------|-------------|
|      | IC301                | PD0012A     |
|      | D306, D308           | LN0401GP3   |
|      | D307, D309           | LN0401YP4   |
|      | D303                 | LN5160A     |
|      | D302                 | LN526GA     |
|      | D305                 | LN526RA (V) |
|      | D301                 | LN536GAMG   |
|      | D304                 | LN536RAMR   |
|      | D312-D317            | SLV-31DC3-G |
|      | D310, D311           | SLV-31MC3-H |
|      | D318-D323            | SLV-31VC3-G |

## SWITCHES

| Mark | Symbol & Description                                    | Part No. |
|------|---------------------------------------------------------|----------|
|      | S301-S303 Push switch<br>(MEMORY CHECK,<br>START, STOP) | DSG-106  |

## CAPACITOR

| Mark | Symbol & Description | Part No.    |
|------|----------------------|-------------|
|      | C301                 | CKCYF473Z50 |

## RESISTORS

| Mark | Symbol & Description | Part No.                |
|------|----------------------|-------------------------|
|      | All resistors        | RD $\frac{1}{4}$ PM□□□J |

## ⊙ PWSP UNIT (DWR1045)

## SEMICONDUCTORS

| Mark | Symbol & Description | Part No.    |
|------|----------------------|-------------|
| △    | IC901                | NJM7805A    |
| △    | Q901                 | 2SD1277     |
| △    | D905-D908            | SM1.5-02LFB |
| △    | D901-D904            | DSA1A1      |
|      | D909                 | MTZ13B      |

## COIL

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
| △    | L901 Line filter     | VTL-004  |

## CAPACITORS

| Mark | Symbol & Description                | Part No.    |
|------|-------------------------------------|-------------|
|      | C904, C909                          | CEAS221M16  |
|      | C903                                | CEAS332M16  |
|      | C907                                | CEAS332M35  |
|      | C908                                | CEAS470M25  |
|      | C905, C906                          | CKCYF473Z50 |
| △    | C901, C902<br>(0.01 $\mu$ F/AC250V) | RCG-009     |

## RESISTORS

| Mark | Symbol & Description | Part No.                |
|------|----------------------|-------------------------|
|      | R903                 | RD $\frac{1}{4}$ PM225J |
|      | Other resistors      | RD $\frac{1}{4}$ PM□□□J |

## PWSW UNIT

## SWITCH

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
| △    | S901 Power switch    | RSA-063  |

## CAPACITORS

| Mark | Symbol & Description       | Part No. |
|------|----------------------------|----------|
| △    | C910 (0.01 $\mu$ F/AC250V) | RCG-009  |

## OTHERS

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
|      | J901, J902 Connector | DKP1033  |

## ⊙ KEYB UNIT (DWS1007)

## SWITCHES

| Mark | Symbol & Description                   | Part No. |
|------|----------------------------------------|----------|
|      | S601-S614 Push switch<br>(1-0, A-C, E) | DSG-106  |

## RESISTORS

| Mark | Symbol & Description | Part No.                |
|------|----------------------|-------------------------|
|      | R601-R607            | RD $\frac{1}{4}$ PM472J |

## MODE UNIT

## SWITCHES

| Mark | Symbol & Description                                             | Part No. |
|------|------------------------------------------------------------------|----------|
|      | S503 Push switch<br>(INTERRUPT)                                  | DSG-106  |
|      | S501, S502 Slide switch<br>(BGV MODE SELECTOR,<br>MODE SELECTOR) | DSH1003  |

## RESISTORS

| Mark | Symbol & Description | Part No.                |
|------|----------------------|-------------------------|
|      | R501                 | RD $\frac{1}{4}$ PM472J |

## OTHERS

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
|      | CN501 LP connector   | W-P5807  |



## IRAB UNIT

## SEMICONDUCTOR

| Mark | Symbol & Description | Part No.   |
|------|----------------------|------------|
|      | D401                 | SLR-54VR3H |

## CAPACITOR

| Mark | Symbol & Description | Part No.    |
|------|----------------------|-------------|
|      | C401                 | CEJA101M6R3 |

## RESISTORS

| Mark | Symbol & Description | Part No.                |
|------|----------------------|-------------------------|
|      | R402                 | RD $\frac{1}{4}$ PM470J |
|      | R401                 | RD $\frac{1}{4}$ PM681J |

## OTHERS

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
|      | IR sensor unit       | VXX1021  |

## DINB UNIT

## SWITCH

| Mark | Symbol & Description                 | Part No. |
|------|--------------------------------------|----------|
|      | S801 Slide switch<br>(BILL BOX MODE) | VSH-004  |

## OTHERS

| Mark | Symbol & Description     | Part No. |
|------|--------------------------|----------|
|      | CN802 DIN connector U 8P | DKP-118  |
|      | CN801 DIN socket 13P     | DKP-121  |

## AVOT UNIT

## SEMICONDUCTORS

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
|      | IC701                | TC4066BP |
|      | Q701                 | 2SC1740S |
|      | D701                 | MTZ6.2B  |

## CAPACITORS

| Mark | Symbol & Description | Part No.    |
|------|----------------------|-------------|
|      | C703-C706            | CEAS4R7M50  |
|      | C707, C708           | CEAS2R2M50  |
|      | C701, C702           | CKCYF473Z50 |

## RESISTORS

| Mark | Symbol & Description    | Part No.                |
|------|-------------------------|-------------------------|
|      | VR701 Variable resistor | DCS-117                 |
|      | Other resistors         | RD $\frac{1}{4}$ PM□□□J |

## OTHERS

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
|      | Pin jack 4P          | DKB1005  |

## RFMB UNIT

## OTHERS

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
|      | RFMD                 | VWL1008  |

## AVIN UNIT

## SEMICONDUCTORS

| Mark | Symbol & Description    | Part No. |
|------|-------------------------|----------|
|      | IC1-IC4                 | TC4066BP |
|      | Q1-Q4, Q9-Q11, Q16      | 2SA933S  |
|      | Q5-Q8, Q13-Q15, Q17-Q20 | 2SC1740S |
|      | Q12                     | 2SD1277  |
|      | D1                      | MTZ13B   |
|      | D2                      | DSA1A1   |

## CAPACITORS

| Mark | Symbol & Description           | Part No.    |
|------|--------------------------------|-------------|
|      | C18                            | CCCCH330J50 |
|      | C28                            | CEAS101M16  |
|      | C30                            | CEAS101M25  |
|      | C5-C12, C15, C16               | CEAS2R2M50  |
|      | C24, C29                       | CEAS331M16  |
|      | C1-C4, C14, C17, C19, C20, C22 | CEAS470M16  |
|      | C31                            | CEAS470M25  |
|      | C25-C27                        | CEAS471M16  |
|      | C23                            | CKCYB331K50 |
|      | C13, C21                       | CKCYF473Z50 |

## RESISTORS

| Mark | Symbol & Description | Part No.                |
|------|----------------------|-------------------------|
|      | R43                  | RD $\frac{1}{6}$ PM471J |
|      | Other resistors      | RD $\frac{1}{4}$ PM□□□J |

## OTHERS

| Mark | Symbol & Description | Part No. |
|------|----------------------|----------|
|      | Pin jack 3P          | VKB-022  |

## REMOTE CONTROL UNIT

## RMTC UNIT (DWY1004)

## SEMICONDUCTORS

| Mark | Symbol & Description | Part No.  |
|------|----------------------|-----------|
|      | IC1                  | UPD6102G  |
|      | Q1                   | 2SC2021LN |
|      | Q2                   | 2SC2673   |
|      | D1                   | SLP-173B  |
|      | D2                   | SE303A-X  |
|      | D3-D8                | 1SS133HV  |

**SWITCHES**

| <u>Mark</u> | <u>Symbol &amp; Description</u>                         | <u>Part No.</u> |
|-------------|---------------------------------------------------------|-----------------|
|             | S1–S25 Tact switch<br>(1–0, A–C, E, #1–#4,<br>N, 64–61) | KHH10914        |

**CAPACITORS**

| <u>Mark</u> | <u>Symbol &amp; Description</u> | <u>Part No.</u> |
|-------------|---------------------------------|-----------------|
|             | C1                              | CKCYF103Z50     |
|             | C2                              | CEA221M6R3      |
|             | C3, C4                          | CCDSL101J50     |

**RESISTORS**

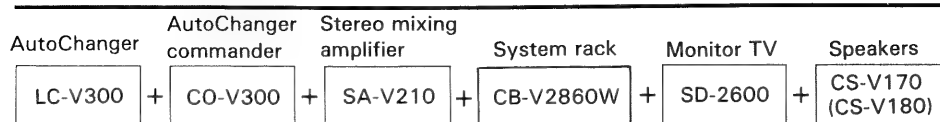
| <u>Mark</u> | <u>Symbol &amp; Description</u> | <u>Part No.</u> |
|-------------|---------------------------------|-----------------|
|             | All resistors                   | RD 1/6 PM □□□ J |

**OTHERS**

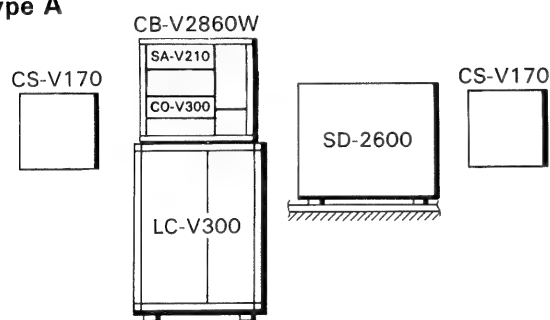
| <u>Mark</u> | <u>Symbol &amp; Description</u> | <u>Part No.</u> |
|-------------|---------------------------------|-----------------|
|             | X1 Ceramic resonator            | CSB480EB        |

## 5. SYSTEM COMBINATION EXAMPLE

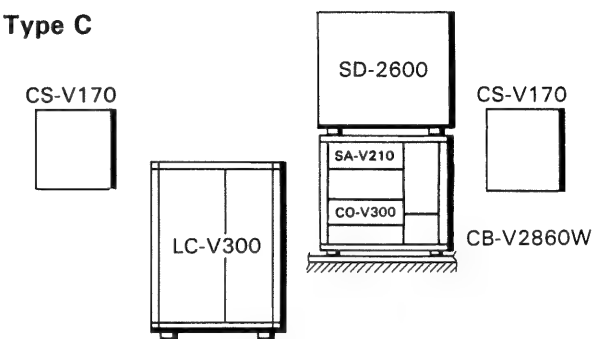
### BASIC SYSTEM COMBINATION



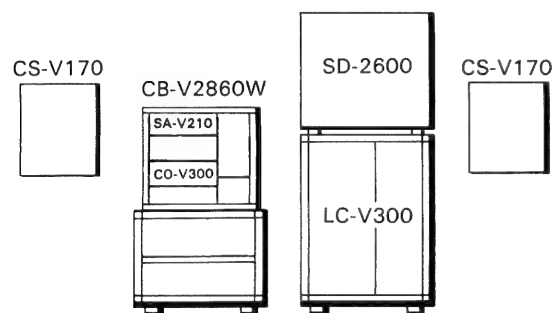
**Type A**



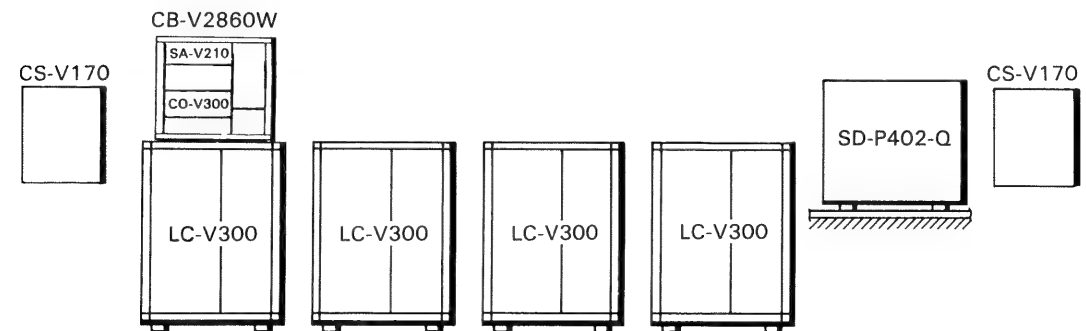
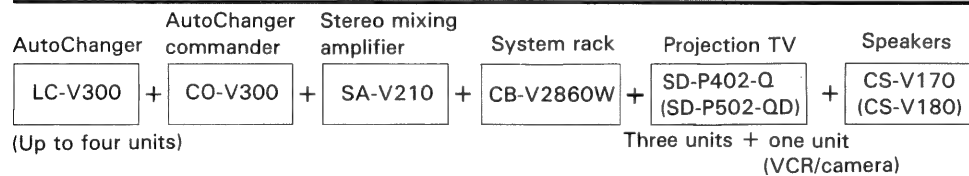
**Type C**



**Type B**

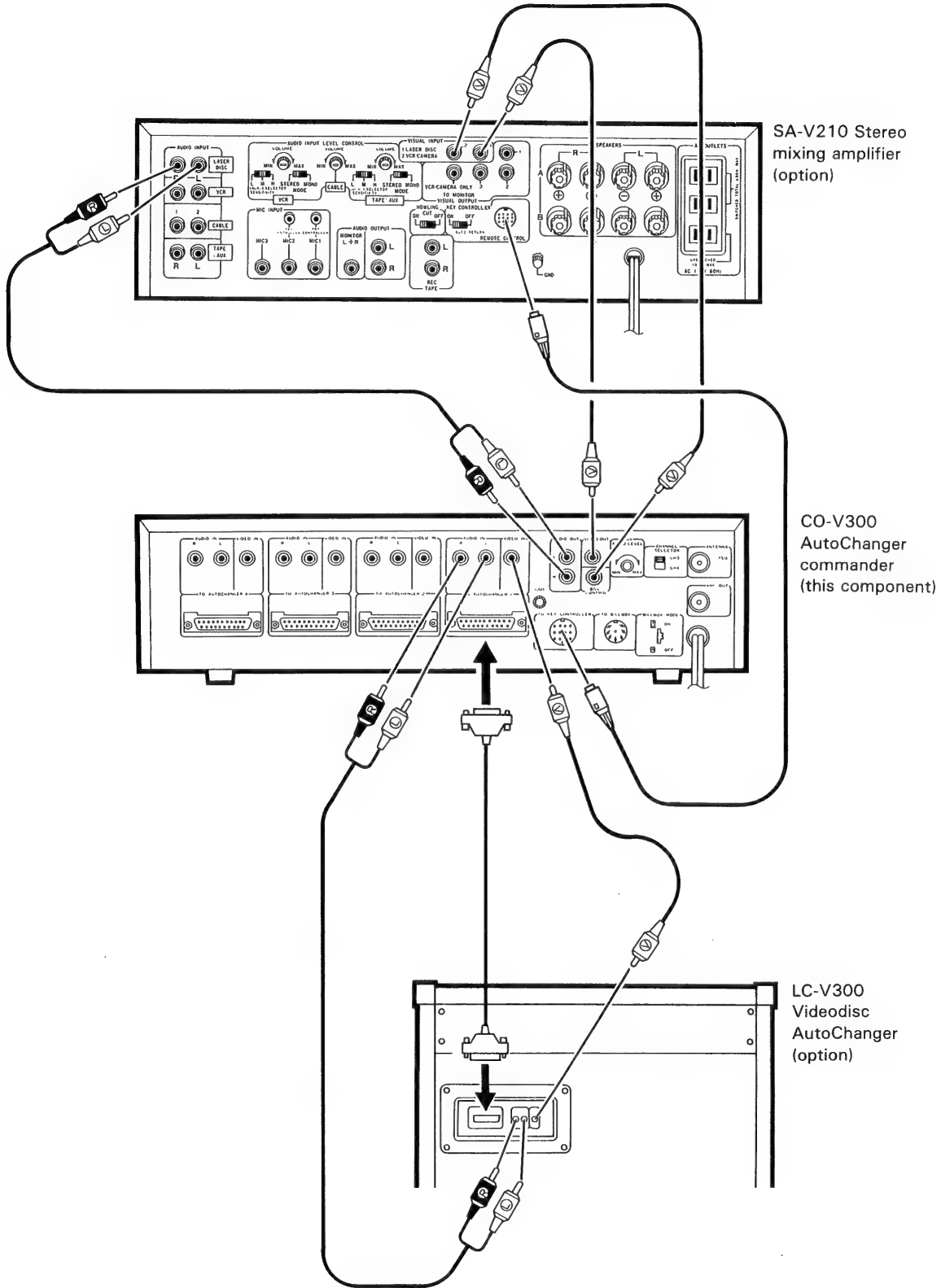


### DEVELOPMENTAL SYSTEM COMBINATION



## 6. SYSTEM CONNECTION EXAMPLE

## 1. CONNECTING THE LC-V300 VIDEODISC AUTOCHANGER, CO-V300 AUTOCHANGER COMMANDER, AND SA-V210 STEREO MIXING AMPLIFIER

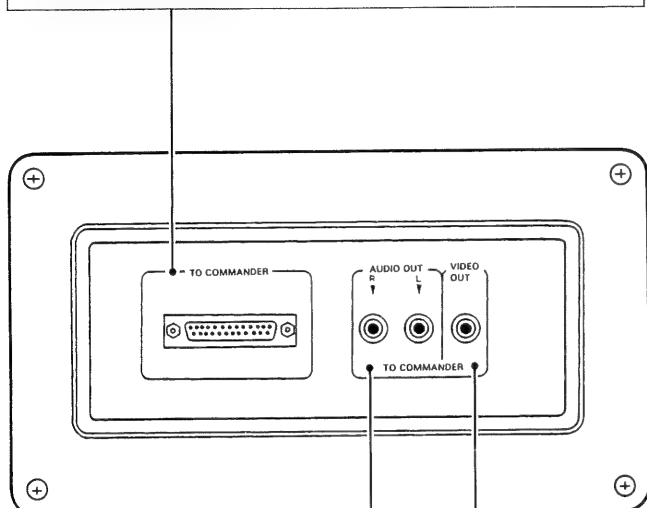


## 7. OPERATION OF THE LC-V300

### REAR TERMINAL FACILITIES

#### Control terminal (25-pin D-sub connector)

Connected to the AutoChanger control of the CO-V300 (use the attached control cable).



#### VIDEO OUT terminal (RCA jack)

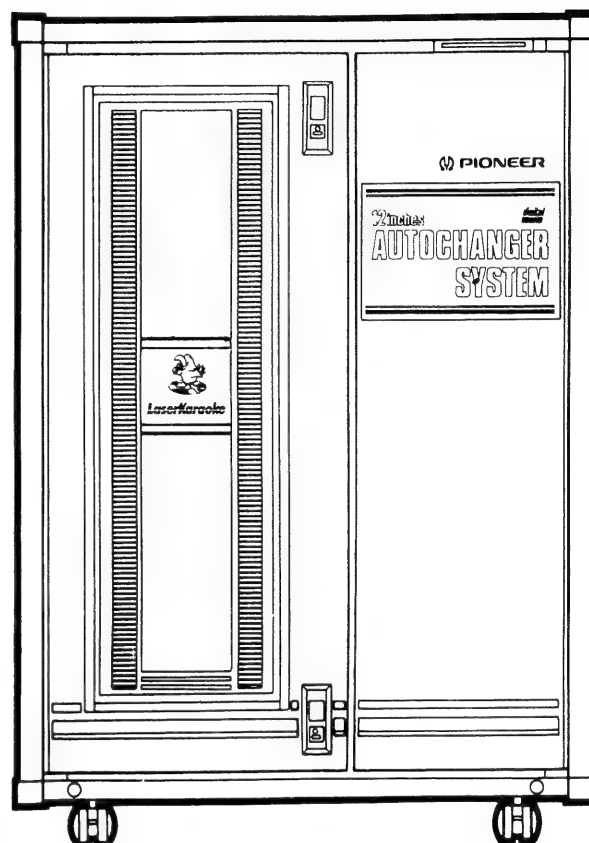
Connected to the AutoChanger VIDEO input of the CO-V300 (use the attached video cable).

#### AUDIO OUT terminals (RCA jack)

Connected to the AutoChanger AUDIO input of the CO-V300 (use the attached audio cable).

### CASTER LOCK

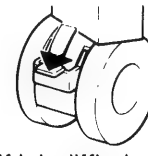
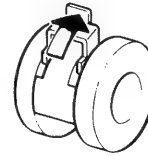
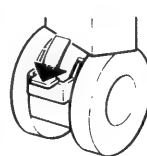
The front casters are provided with a locking mechanism. Lock as shown in the diagram.



Lock

① The lock will be released when the claw is pushed up.

② The lock will be secured when the claw is pushed down.

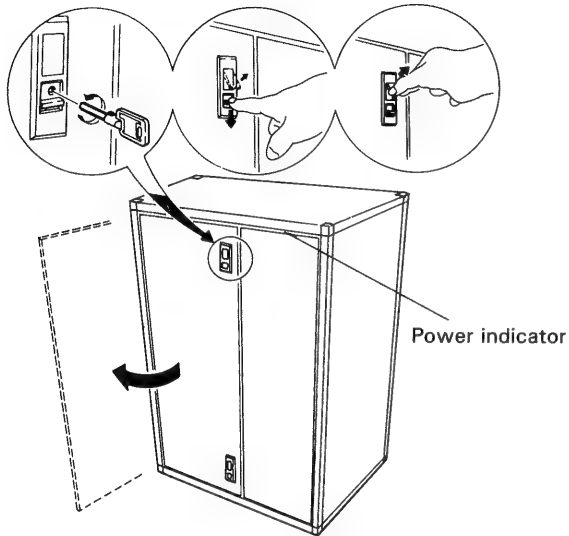


If it is difficult to lock, turn the caster slightly.

## STORAGE OF DISC AND DISC TRAY

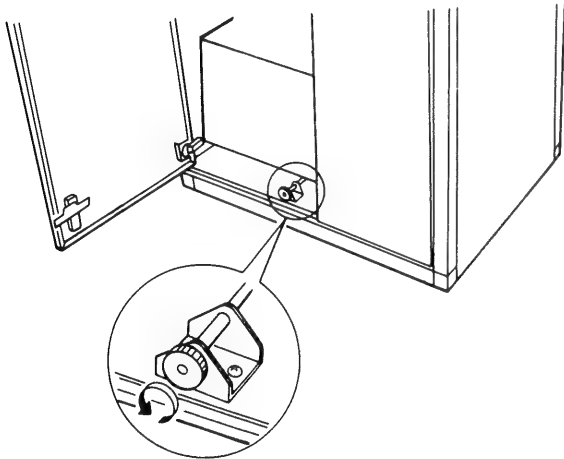
### How to Open the Door

Release the door locks (at two places, top and bottom). To open the door by hand, release the locks with the key attached to the AutoChanger and press the places indicated by the arrow, then hold the knob up.



### Released of Transport Screw

Loosen the screw sufficiently until there is no resistance. This screw will not come off when loosened.

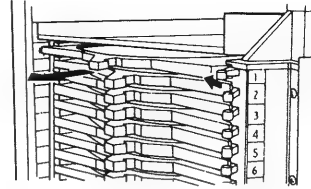


### Storage of Disc

Insert the disc while confirming the disc address.

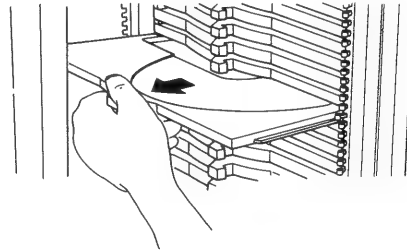
#### 1. Press the stopper located next to the disc address.

- The disc tray corresponding to the address will eject to the specified position.



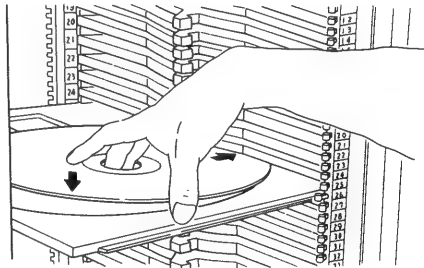
#### 2. Remove the disc tray.

- Be careful not to take out the tray too far. The tray may dislocate from the groove. In the case of dislocation, insert the tray along the groove as before.



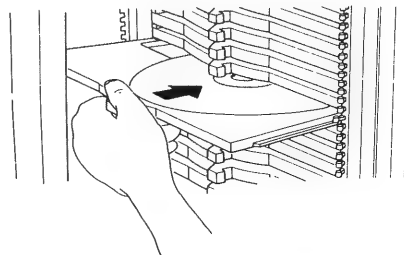
#### 3. Insert the disc.

- Be sure that side A of the disc label faces up when inserting the disc. Insert carefully to avoid damaging the disc surface with the upper tray.



#### 4. Push back the disc tray.

- Push the tray slowly until the stopper pushed in step 1. returns to its original position.





## STORE ALL NECESSARY DISCS BY REPEATING THE SAME PROCEDURE.

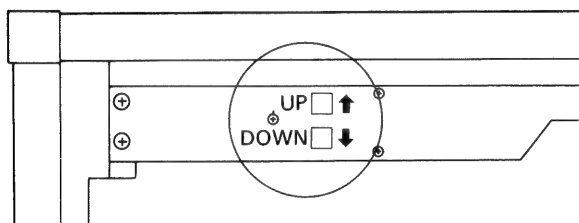
If the player unit prevents the insertion of the discs to the disc tray, turn the power ON and press the UP/DOWN button. Hold the button until the power indicator begins to blink slowly (1/sec.), then close the door of the AutoChanger. (Lock at top and bottom.) The player goes up to the upper limit when the UP button is pressed, and goes down to the lower limit when the DOWN button is pressed. The power indicator will blink slowly (1/sec.) when the player unit is moving.

When the power indicator stops blinking, the transfer is completed. Open the door and insert the discs. However, the player unit cannot be moved by the UP/DOWN button and the power indicator will blink rapidly (4/sec.) when the transport screw has not been loosened.

After moving of the player unit, the player will stop for approx. 20 sec.

After this period (if the door is closed), the BGV MODE SELECTOR switch is activated, and the player unit moves to BGV performance.

If the lock of the door is released while the player unit is moving, then the player will stop immediately.



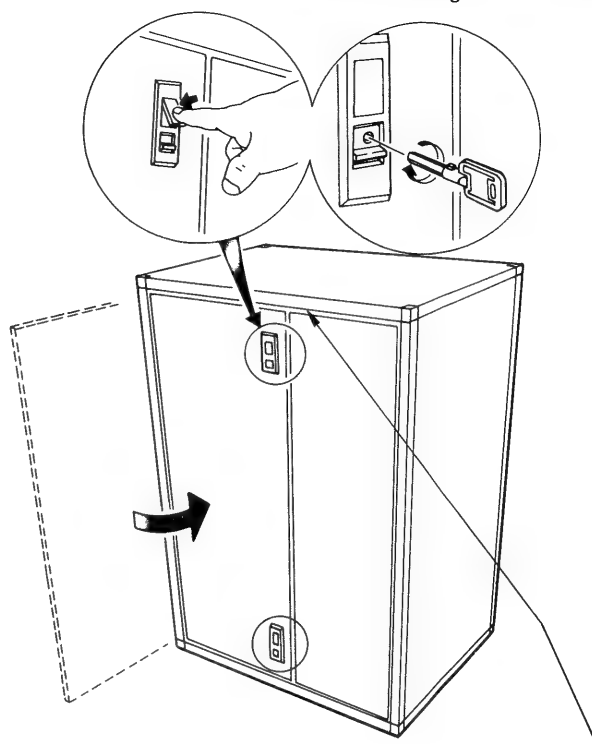
For BGV playback insert the BGV disc in the 71st and/or 72nd tray.

If BGV playback is not desired, Karaoke discs can be placed into the trays 1 – 72.

Please note that BGV playback cannot be carried out from discs in the second Autochanger.

## How to Close the Door

- Lock by lever ..... Close the door and lock it. (Be sure to lock at two places.)
- Lock by key ..... Lock the door with the key attached to the AutoChanger.



The power indicator flashes when the door is closed with incorrect disc tray setting.

## REPLACING THE DISC

Perform it with the same procedure as "Storage of the Disc." Be careful that the player stops playback when the door is opened during play.

## TRANSPORTATION

1. Open the door of the AutoChanger.
2. Remove all discs and put them into their jackets.
  - Press the DOWN button to lower the player unit to the bottom after taking out all discs. The transport screw cannot be tightened if the player is not in bottom position.
3. Tighten the transport screw.
  - Transportation without the screw tightened may cause malfunction.
4. Close the door and lock it.
5. Turn the power OFF and disconnect all connection cords.
6. Move the machine carefully. In the case of shipping, pack it in its original box.

## 8. PANEL FACILITIES

### FRONT PANEL

#### POWER switch ( ON, OFF)

Pressing the switch turns the power on, and releasing the switch turns the power off.

#### REMOTE indicator

Lights up when the REMOTE SENSOR receives a signal from the remote control unit.

#### REMOTE SENSOR

Receives a signal from the remote control unit at a distance up to 5 m.

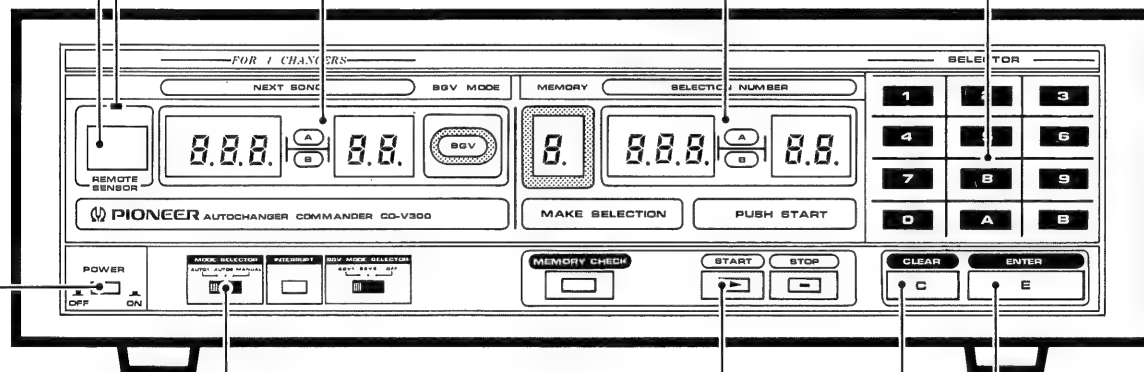
#### NEXT SONG indicator

Shows the song number to be played next. If the ENTER key is pressed when the first song is memorized (shown by the SELECTION NUMBER indicator), the number is shown on the indicator. When playing of the indicated song starts, the number of the next song to be played is shown.

#### SELECTION NUMBER indicator

Pressing a SELECTOR key shows the selected song number. In memory check mode, it indicates the memorized song numbers.

#### SELECTOR keys (0 to 9, A, B)



#### MODE SELECTOR switch

- **AUTO 1** — Automatically plays memorized songs at intervals of about 10 to 25 seconds.
- **AUTO 2** — Automatically plays memorized songs at intervals of 30 seconds.
- **MANUAL** — Requires pressing the START key to start playing the next song after playback of the prior song ends.

#### START key

Use to start playback when the MANUAL mode is specified by the MODE SELECTOR switch.

#### ENTER (E) key

To memorize songs.

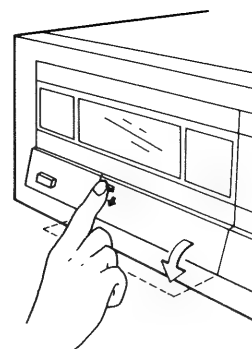
#### CLEAR (C) key

If this key is pressed prior to pressing the ENTER key after a song number has been selected, the song number can be canceled.

The song number blinking on the NEXT SONG indicator can be canceled in reselection mode.

## [How to open]

Pull the tab  
labeled OPEN.

**BGV MODE SELECTOR switch**

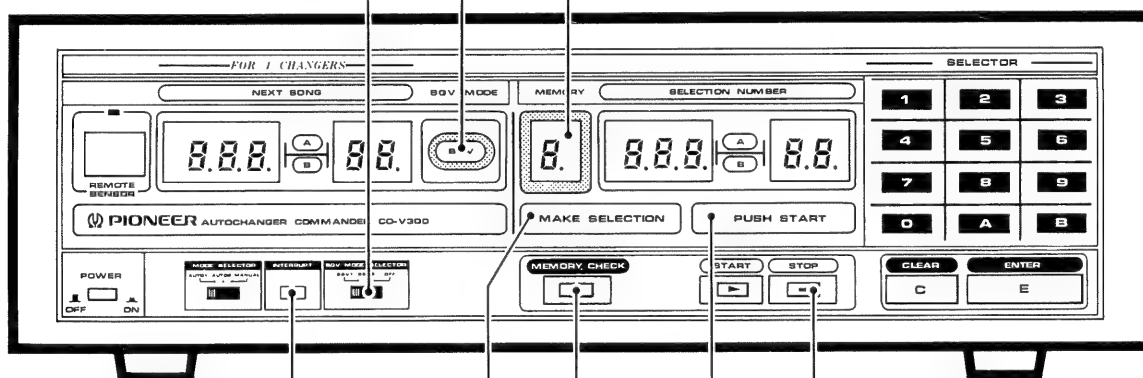
- **BGV1** — Outputs both images and sound during BGV disc playback.
- **BGV2** — Outputs only images during BGV disc playback.
- **OFF** — Does not play a BGV disc.

**BGV indicator**

Lights up during BGV disc playback.

**MEMORY indicator**

Displays the number of memorized songs.  
Up to eight songs can normally be memorized. However, up to nine songs are memorized if interrupt selection is executed.  
The memory sequence is shown in memory check mode.

**INTERRUPT key**

To interrupt the memorized song sequence and play another song before the next memorized song.

**MAKE SELECTION indicator**

Lights up when song selection can be operated.

**MEMORY CHECK key**

Each time this key is pressed, the memorized song number is shown by the SELECTION NUMBER indicator and the memory sequence is displayed by the MEMORY indicator.

**STOP key**

Press to stop a song during playback.  
The system enters reselection mode if the STOP key is pressed within 30 seconds of playback start.

\* If a BILL BOX is used, a song is assumed to have ended when 30 seconds or more have elapsed since the screen was displayed.

**PUSH START indicator**

Blinking when a song is ready to start in MANUAL mode.

## REAR PANEL

**TO AUTOCHANGER 1 connecting terminal**

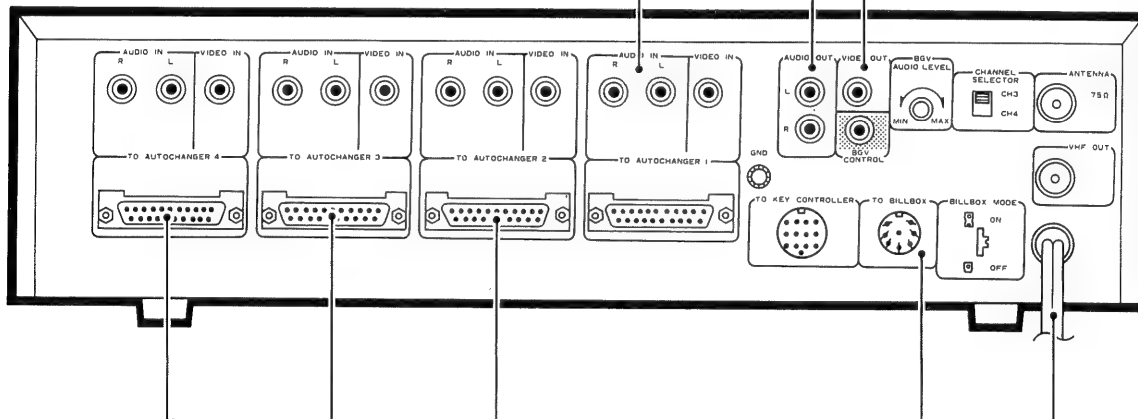
Connects the first Videodisc AutoChanger (first disc to 72nd disc).

- VIDEO IN (pin jack):  
Connected to the VIDEO OUT terminal of the Videodisc AutoChanger (use the attached video cable).
- AUDIO IN (pin jack):  
Connected to the AUDIO OUT terminal of the Videodisc AutoChanger (use the attached audio cable).
- Control (25-pin D-sub connector):  
Connected to the TO COMMANDER terminal of the Videodisc AutoChanger (use the attached control cable).

**VIDEO OUT, AUDIO OUT terminals**

Output the image and sound signals input by the Videodisc AutoChanger. Connected to the stereo mixing amplifier.

- VIDEO OUT (RCA jack):  
Connected to the **LASERDISC** image input of the mixing amplifier (use the attached video cable).
- BGV CONTROL (RCA jack):  
Connected to the **VCR/CAMERA** image input of the mixing amplifier (use the attached video cable).
- AUDIO OUT (RCA jack):  
Connected to the **LASERDISC** sound input of the mixing amplifier (use the attached audio cable).

**TO AUTOCHANGER 2, 3, 4 connecting terminals**

Connect the second to fourth Videodisc AutoChangers.

- 2 — For the second unit
- 3 — For the third unit
- 4 — For the fourth unit

**Power cord**

Insert into a wall outlet (120 V AC, 50/60 Hz) or the outlet of the SA-V210 stereo mixing amplifier (option).

**TO BILL BOX terminal (8-pin DIN connector)**

Connected to the control terminal of a BILL BOX (use the dedicated cable attached to the BILL BOX).

**CHANNEL SELECTOR switch (CH3/CH4)**

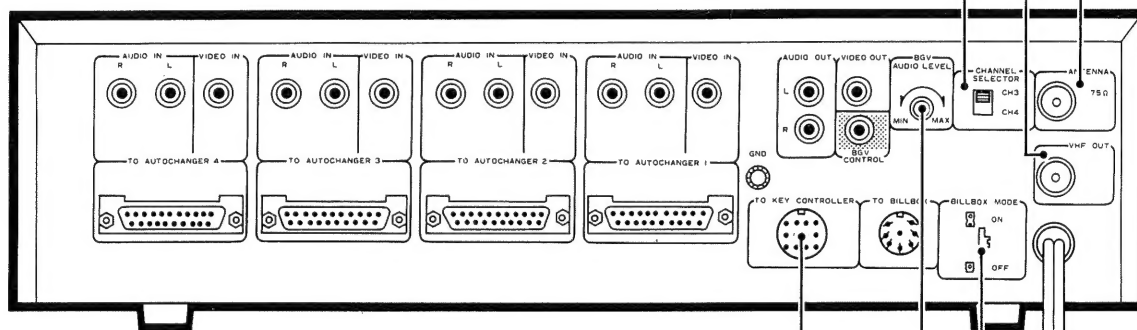
Changes the channel of the integral VHF converter; specify a channel not used for broadcasting in the area where this unit is used.

**VHF OUT terminal (75 ohms F-type jack)**

Connected to the VHF antenna terminal of a TV set (use the attached RF cable).  
Video only is output without sound during disc playback.

**ANTENNA input terminal (75 ohms F-type jack)**

Connected to a 75-ohm cable from the VHF TV antenna.

**TO KEY CONTROLLER terminal (13-pin DIN connector)**

Connected to the KEY CONTROLLER REMOTE CONTROL terminal of the SA-V210 stereo mixing amplifier (option) (use the attached key controller control cable). This connection enables the integral key controller in the amplifier to be operated from the attached remote control unit.

**BILL BOX MODE switch**

Sets BILL BOX MODE ON/OFF. (Press for OFF)



Out (BILL BOX MODE: ON): The system operates only if connected to the BILL BOX.



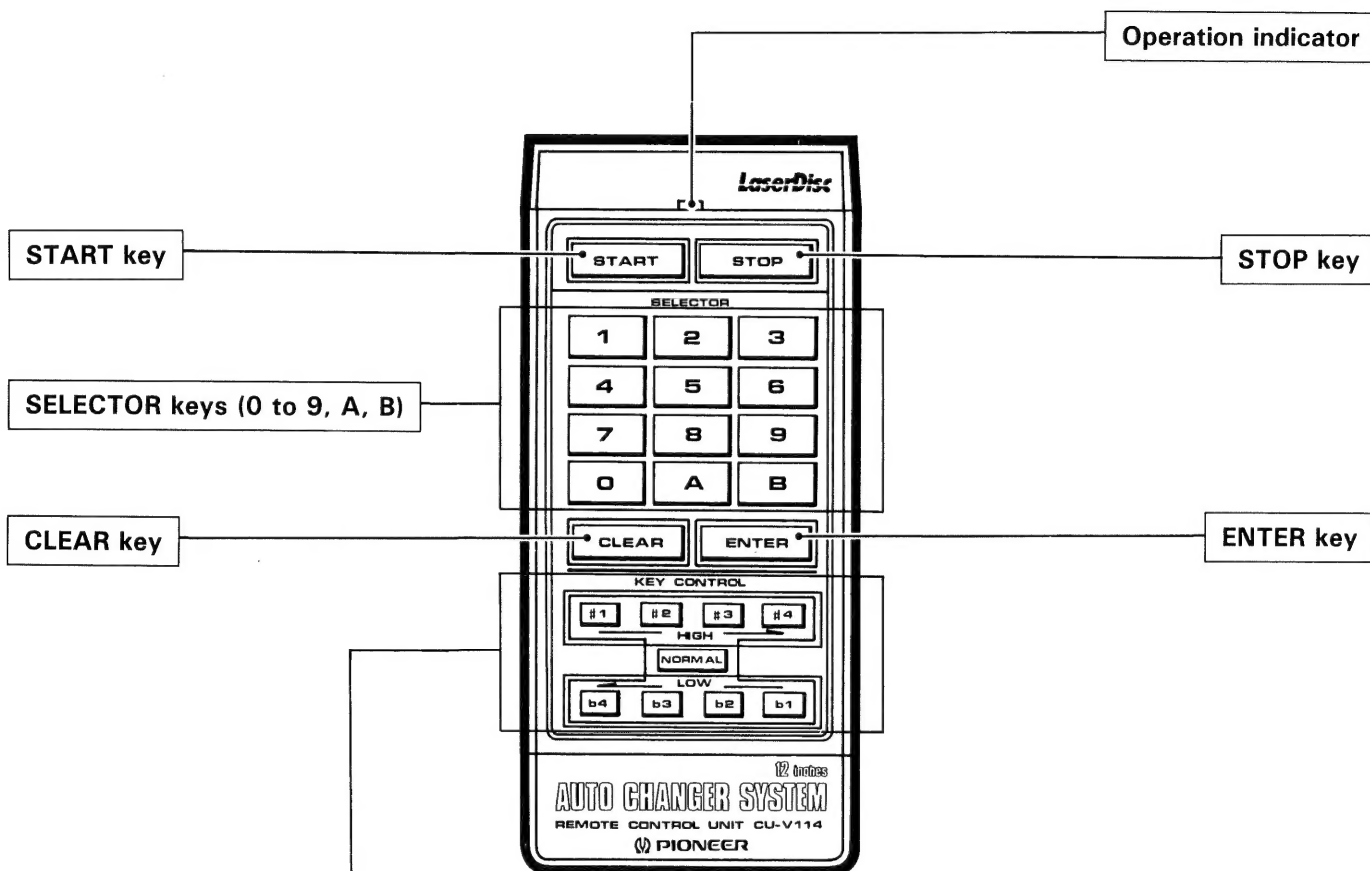
Depressed (BILL BOX MODE: OFF): The system operates without the BILL BOX (if the BILL BOX is connected, connect the audio/video output directly to the amplifier).

**BGV AUDIO LEVEL control**

Controls the BGV sound volume when a BGV disc is played. Rotate to the left to reduce sound volume; rotate to the right to increase sound volume. This control is not related to the audio level of the karaoke playback.

## REMOTE CONTROL UNIT

The functions of the keys, other than the KEY CONTROL keys, are the same as for the keys on the CO-V300 main unit.



### KEY CONTROL keys

Operates the integral KEY CONTROLLER in the SA-V210 if the KEY CONTROLLER terminal of the CO-V300 Videodisc AutoChanger is connected to the KEY CONTROL REMOTE CONTROL terminal of the SA-V210 stereo mixing amplifier.

#1 to #4 — Increases the pitch up to the four steps by the semitone.

NORMAL — Sets the standard key.

b1 to b4 — Decreases the pitch up to the four steps by the semitone.

### (Auto Return Function)

The SA-V210 Auto Return function returns the previous song key to standard key each time a song ends.

This function is activated when the AUTO RETURN switch on the SA-V210 rear panel is ON.



## 9. SPECIFICATIONS

## General

|                          |                                                                       |
|--------------------------|-----------------------------------------------------------------------|
| Power requirements       | 120 V AC, 50/60 Hz                                                    |
| Power consumption        | 21W                                                                   |
| Weight (without package) | 5.3kg (11 lb 11 oz)                                                   |
| Dimensions               | 420(W) × 348(D) × 120(H) mm<br>16-9/16(W) × 13-11/16(D) × 4-3/4(H) in |
| Operating temperature    | +5°C to +35°C                                                         |
| Operating humidity       | 5% to 90%                                                             |

### Video input/output

|                           |          |
|---------------------------|----------|
| INPUT terminal . . . . .  | RCA jack |
| OUTPUT terminal . . . . . | RCA jack |

### Audio input/output

INPUT terminals . . . . . RCA jack  
OUTPUT terminals . . . . . RCA jack

### Other terminals

TO BILL BOX ..... 8-pin DIN  
TO KEY CONTROLLER (To amplifier KEY  
CONTROLLER REMOTE CONTROL jack) ..... 13-pin DIN  
TO AUTOCHANGER ..... 25-pin D-sub

## Functions

- **BILL BOX mode** . . . . . ON/OFF switchable
- **Program selection** . . . . . Up to eight songs
- **Program change and cancellation** . . . . . Within 30 seconds  
from playback start
- **START mode** . . . . . AUTO/MANUAL switchable,  
INTERRUPTION play available
- **BGV mode** . . . . . VIDEO-AUDIO/VIDEO ONLY/OFF switchable

## Accessories

- Key controller control cable . . . . . 1
- Video cable . . . . . 2
- Audio cable . . . . . 1
- Remote control unit (CU-V114) . . . . . 1
- Size "AA" battery (R6/UM-3) . . . . . 2
- Operating instructions . . . . . 1
- RF cable . . . . . 1
- Antenna adapter (75/300 ohms → 75 ohms) . . . . . 1

**NOTE:**

- Specifications and design subject to possible modifications without notice, due to improvement.

